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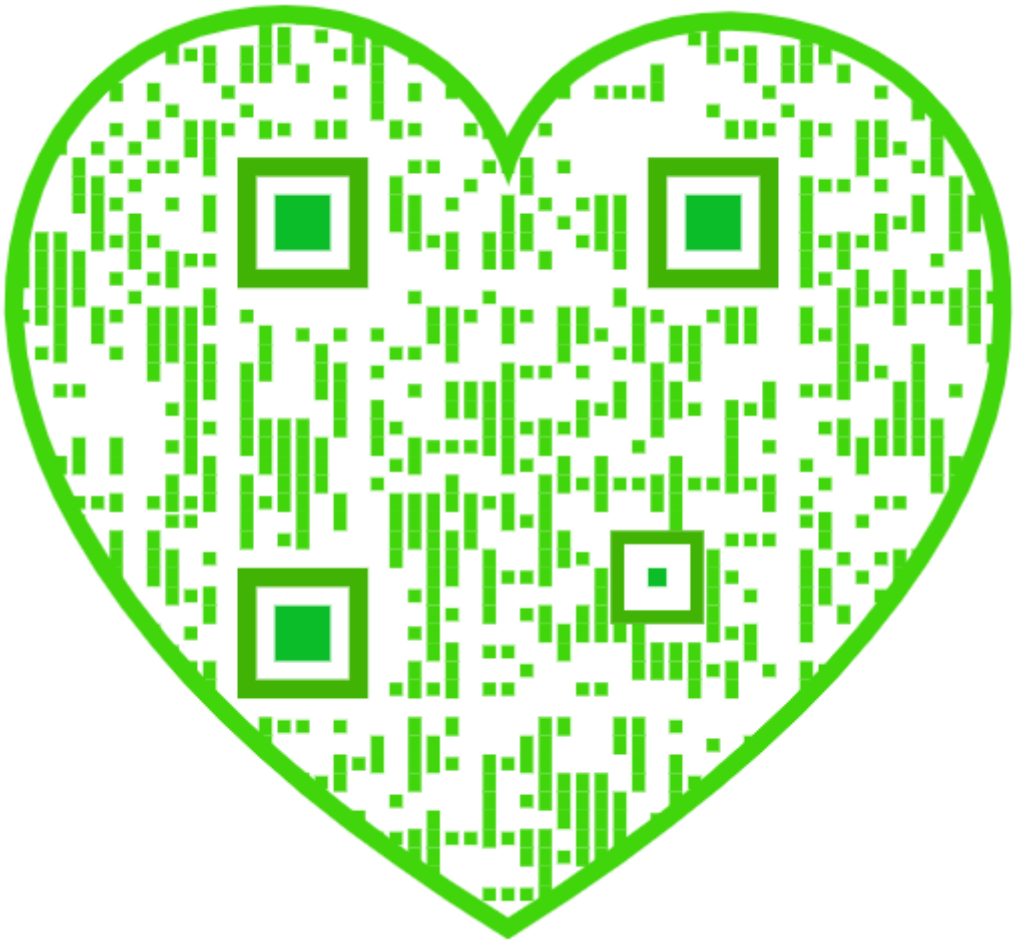
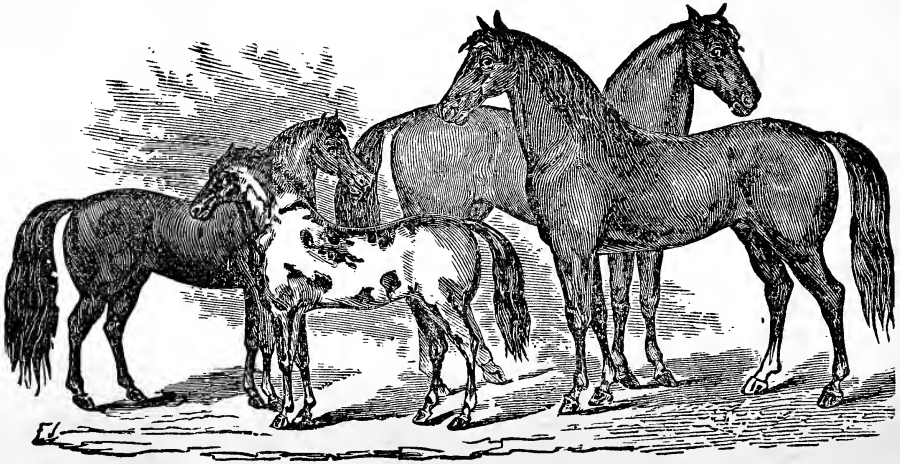
NEW SYSTEM OF EDUCATING HORSES

O. MAGNER





BLIND BILLY. TOMMY. TURCO. GIFFORD.

PROF. MAGNER'S FAVORITE HORSES.

(From a Painting by H. Whinry, Esq.)

THE

NEW SYSTEM

OF

EDUCATING HORSES;

INCLUDING INSTRUCTIONS ON

FEEDING, WATERING, STABLING, SHOEING, ETC.

WITH

TREATMENT FOR DISEASES.

ILLUSTRATED.

INCLUDING MANY VALUABLE RECIPES

NOT BEFORE PUBLISHED.

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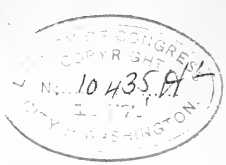
BY D. MAGNER,

Author of the NEW SYSTEM.

TWELFTH EDITION; RE-WRITTEN, WITH NEW ILLUSTRATIONS.



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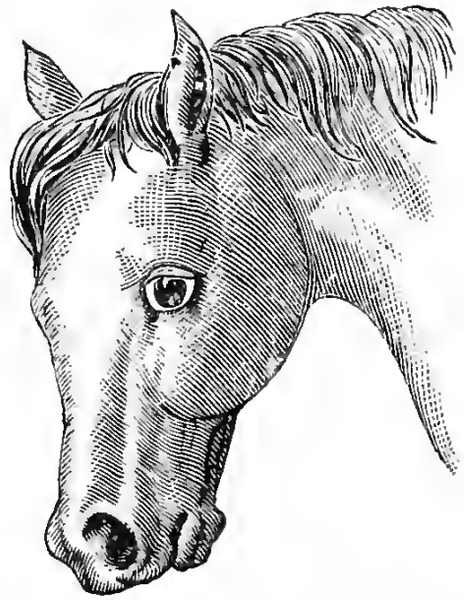
D. MAGNER.

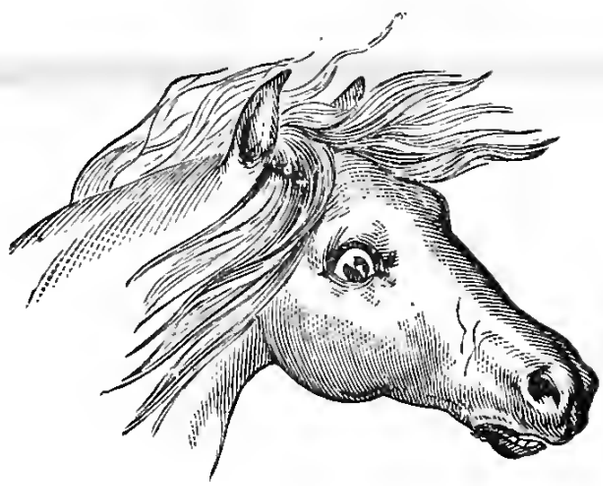
NATURAL EXTREMES AND MODIFICATIONS OF CHARACTER IN THE HORSE.

(No. 1.) Learns easily, and is naturally gentle: no matter how bad, will work in gentle.

(No. [illegible] uined, and in easily.



(No. 10.) This character to look at is very gentle, but when excited to resistance will throw all his energies against you. Very dangerous if afraid of objects, because the resistance is likely to be without warning.



(No. 11.) A nervous, flighty disposition; thin-skinned; will work in very easily if not excited. A mild lesson of passive treatment is usually all that is necessary. Must have careful, gentle after-treatment.

PREFACE.

BY REV. W. H. H. MURRAY.

THERE are eleven million horses in the United States, and not one man in a million who knows how to educate them to the highest degree of usefulness. We say *educate;* for the horse is an animal of high and spirited organization, endowed by his Creator with capabilities and faculties which sufficiently resemble man's to come under the same general law of education and government. Primarily, the word educate means to *lead out* or *lead up;* and it is by this process of *leading out* and *leading up* a child's faculties that the child becomes a useful man, and it is by a like process that a colt becomes a useful horse. Now teachers, like poets, are born, not made. Only a few are gifted to see into and see through any form of highly organized life, discern its capacities, note the interior tendencies which produce habits, and discover the method of developing the innate forces until they reach their noblest expression, and then apply the true and sufficient guidance and government. The few who have this gift are teachers indeed, and next to the mothers of the world deserve the world's applause, as foremost among its benefactors.

Next to child training and government comes horse training and government; and which is the least understood it were hard to say. Boys and colts, so much alike in friskiness and stubbornness, both are misunderstood

and abused in equal ratio. The boys are shaken and whipped, and colts are yanked, kicked, and pounded. That high-spirited or slow-witted boys become good men, and high-spirited or dull colts make serviceable horses, I conceive is due to the grace of God more than to man's agency, — that fine grace, I mean, spread abroad through and existing in all his creatures, which operates in regenerating continually, making the good better, and preventing those whose circumstances forbid their becoming good from becoming absolutely bad.

The author of this little book is known to me as one of the gifted ones of the earth, because he is gifted to discern the nature of animals, and educate them for man's service. The possession of this gift suggested his mission, and well has he followed it, and by it been educated himself to a degree rarely, if ever, attained by man before. I doubt if there be on the globe his equal in knowledge as to the best method of training horses. Through this volume he seeks to give the public the benefit of his experience. I bespeak for it the careful perusal of the curious and of those especially whose judgment and heart alike prompt them to seek for and promulgate knowledge, which, being popularized, would make the people more humane and horses more serviceable.

W. H. H. Murray,
Murray's Stock Farm, Guilford, Conn.

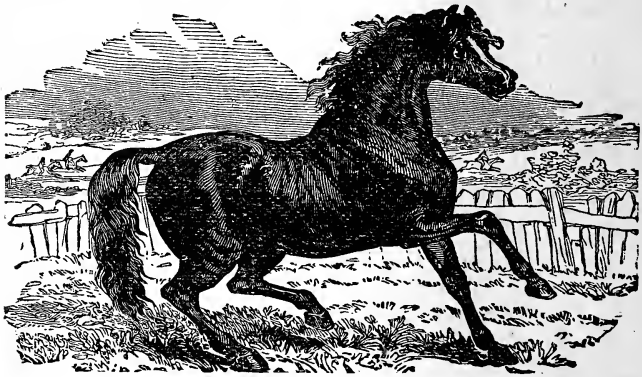
PRELIMINARY HINTS.

GENERAL CONDITIONS AND PRINCIPLES.

I HAVE explained and illustrated the principles of my treatment before the class. I would here call your attention to conditions which underlie success in the application of those principles.

Horses are not all alike. In size, intelligence, and disposition, they show great extremes of character. The horse has also a certain way of reasoning: he is moved to be bad or good by the impressions made upon his nervous system, and the side of the intelligence acted upon, and the intensity or not of the impressions. If I can, by an impression of only a few moments, so excite a horse that I can spoil him, and form a habit which has a controlling influence for life in fixing the character, it is evident the true key of success in either preventing or breaking up such an impression or habit, is to make a stronger impression upon the opposite side of the nervous system in a negative manner; simply holding and enlarging upon that advantage, until it becomes the primary and controlling impression upon the reason of the animal. To make this idea clearer, I would add that all animal functions and physical manifestations are of a positive and negative character. Through these manifestations we have the character according to the influence brought to bear upon it; for example, *hate* is the inverse action of love, and love is the inverse action of hate. A lady is sitting in a car holding a child she loves; a rough man comes in, and tramples upon the infant; the woman's detestation of the man will be exactly in proportion to the love she bears the child. The most deadly hatreds are those excited from the intimacy and confidence of family and social relations, as proved by experience. Every organ of feeling can

be acted upon in both ways. Now, in breaking a bad horse I simply act inversely to a previously deranged organism. In breaking the colt, I aim first to overcome all inclination to resist any demands made upon him; second, to overcome all impressions of fear; third, when a bad character or habit is formed, to counteract that impression, not only directly but as quickly as possible. These conditions I have shown my principles accomplish in the most perfect manner. Here we are compelled to view the various relations of adaptation to our wants in the lower animals in general, as well as the natural conditions of our supremacy to them, — that of superior intelligence; because man has



Fiery, excitable horse, of much courage.

the power to see and understand more than any or all of them, and thereby see how to teach and control them for use, — in a higher sense having all the functions of this variety of animal nature blended in himself. In understanding his own nature, he is able to see and understand each of theirs; and, to get a correct conception of principles which should govern in their subjection, we must see by what principle can the corresponding functions in our nature be influenced and controlled most easily. Here, then, we are naturally brought to the study of physiological laws or conditions, as manifested in the head, body, and disposition, showing natural divisions. The camel,

gazelle, goat, tender, sensitive, and docile; the hog, bear, and mule, the sulky and positive; the cat or feline, that becomes reckless and aggressive by excitement.

ADAPTATION FOR SPECIAL WANTS.

I would here call attention to the wonderful ADAPTATION OF THE VARIOUS CLASSES of the DOMESTIC ANIMALS to the wants and requirements of the people in different sections and locations of the world among whom we find them. In the extreme north, where no other domestic animal could live, we find a dog of peculiar nature, adapted to the wants of the Esquimaux, as a beast of burden, fisherman, hunter, &c., and subsisting on the scantiest fare of fish. A little farther south, the Laplanders have the reindeer, which not only lives and thrives with ease on the scanty fare of the moss peculiar to that region, but supplies the people with subsistence in the way of milk, butter, and cheese. He travels with ease and rapidity long distances, drawing a heavy sledge over the frozen regions, easily guided and controlled by the Laplander as he sits behind. The skin makes the best of clothing, and is fabricated into various necessary uses; while the flesh is indispensable for food. The Peruvians have the llama, or alpaca, which, accustomed to climb the mountains, carries heavy burdens over the Andes, and furnishes them with milk for their children and wool for their clothing, as well as flesh for food. The people of the desert have the camel or dromedary for crossing the arid, sandy plains: not only will he carry a heavy burden patiently, but carries within himself a supply of water to last him for a week. So, as a servant, the horse, as the most valuable of all the domestic animals, is singularly well adapted, by the modifications of his structure and disposition, for the various wants of man. For quick, active exertion, we have the lithe, firm, enduring racer, capable of running with the fleetness of the wind. For ploughing, and drawing heavy loads, large size, square shoulders, patient, gentle disposition, willing to exert himself to the utmost; but in a slow gait, the opposite of the quick, nervous, impulsive thoroughbred, with the form and conformation of the greyhound. The different breeds or families, we see, run into illimitable modifications, which show a wonderful adaptation for our special wants.

EXTREMES AND MODIFICATIONS OF CHARACTER.

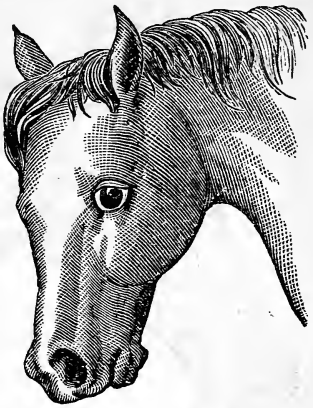
Physiology comprehends the whole body, — the depth of lung, circulation of the blood, texture of the tissues, and every thing down to the molecular structure of the animal. Physiognomy is the outside expression of different parts of the head, as shown in the eye, ear, nostrils, and general measurement of the features. Every part must correspond with every other part of the body, and, finally, the influence of the training, to arrive at a correct conclusion; else, by being mere partialists, or looking only at isolated points, there is danger of arriving at a wrong conclusion, very wide of the mark. One man, for example, takes the ear as his standpoint, and concludes that horses having ears of the same shape have similar characters. Thus he concludes, that if a horse with long ears has kicked, and broken a wagon, you had better look out for every horse with long ears, because they will do the same. Another studies the eye, and judges all horses by that organ; another, the nostrils; others, the breadth and size between the ears, &c. In studying horses, it is not only necessary to study the head as an index to their characters, but we must examine every part of them, as every part of the body bears the mark and impress of the character.

We speak of certain temperaments. By this we mean, that, in every horse, certain traits of character, certain qualities of intelligence and body, predominate. We have *three* distinct temperaments, — Lymphatic, Sanguine, and Nervous. We might claim several other divisions; but it would serve only to confuse the mind, without giving any additional clearness. We do not often find either of the temperaments existing alone, but usually combined to a greater or less degree in the same animal. The most perfectly-

(No. 1.) An intelligent, gentle disposition. Is quick to learn, not nervous or irritable. A natural pet.

balanced characters are when the three temperaments exist in equal proportions.

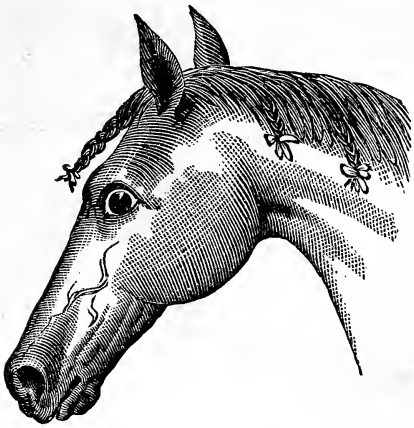
The LYMPHATIC TEMPERAMENT, or class, is characterized by large bones and muscles, small brain, coarse grain and expression, with slow, heavy movements. There is more strength than action, or there is not spirit enough, excepting for a short time after rest and idleness. An unbroken colt of this temperament may act sulky and awkward. If maddened and confused, he will lop his ears, and act like a mule or cow. However bad such a colt may act at first, he will, with a little time and patience, work easily and safely; for, as soon as he learns to obey the bit readily, all that is necessary to do is to put him in harness by the side of a gentle horse, and he will work without trouble. It is a trifling matter to make such a colt gentle; but it is sometimes a serious thing to make him do any thing if warmed up or maddened. He may even throw himself down, without caring to get up; but, when his dull mind is given time to act, he will work like any gentle colt. This horse makes the patient, willing worker. If whipped or abused, he seems to forget it, and is seldom a balker.



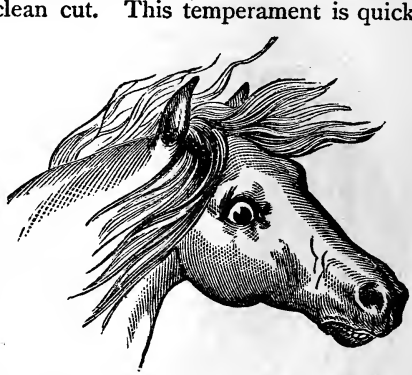
(No. 2.) A very intelligent, gentle disposition, not so active and spirited as No. 1; will bear a great deal of abuse, yet quite positive when excited.

(No. 3.) Starte, one of Mr. Robert Bonner's famous trotters. This head was sketched from life by Mr. Frank Beard, for the writer, and is intended to represent the finest type of equine character. A very intelligent, fine-grained nature; perfectly gentle and manageable, yet capable of the greatest endurance and courage.

The SANGUINE TEMPERAMENT is characterized by strong circulation and great blood-making powers; the chest is deep, giving plenty of freedom for the lungs to act; the digestion is strong, giving capacity for making blood rapidly, as well as oxygenating it; they have consequently a firm, dense organization, with quick, strong action, and great endurance; the head is broad between the eyes; the eyes are large, clear, and very prominent, showing much white; the lids are smooth and clear; the ears are large, not very wide apart; the nostrils are large and clean cut. This temperament is quick to learn mischief, and take advantage of bad treatment by resenting and fighting the efforts to be subjected to control. He will drive the timid man out of his stall, and show a will of his own that is troublesome, if not carefully handled. If the blacksmith is not careful in handling his feet, he will be likely to get kicked across the shop. Pounding and



(No. 4.) A nervous, sensitive disposition; will not bear the whip or abuse.



(No. 5.) A flighty, nervous, excitable disposition, easily spoiled by careless, abusive treatment.

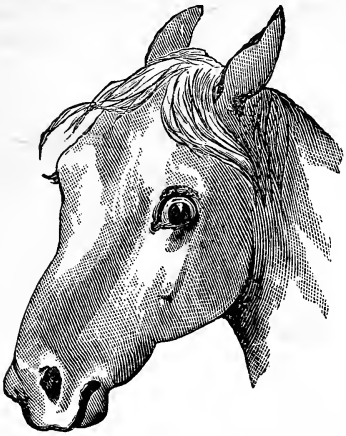
kicking only make him worse. His resistance is surprising, for he is usually only warming into his fight when an ordinary horse would submit from fatigue. Among this class we find the worst runaways, kickers, and the hardest pullers on the bit. As balkers, they will have their own way or fight, refusing to go, if even subjected to the trial of burning straw under the body. When roused to a fight their eyes will blaze like coals of fire, the lips curl, the ears lop backward, indicating *will* of the most desperate order. Whatever he does, he does with the greatest courage. The colt of this temperament is quick to take advantage of any carelessness or weakness in his control. He is liable without warning to kick the wagon and run away.

(No. 6.) A sulky, treacherous disposition, showing great endurance and courage. If a kicker, a very bad, determined one, will contest every point; but when treated skilfully and kindly, susceptible of being very safe and clever.

(No. 7.) A good representative of a bad, treacherous disposition. Will show his temper when sweaty and warmed up by being sulky and persevering in his resistance.

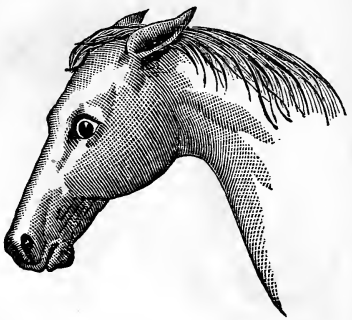
Once excited, and learning his strength, he is a restless, impulsive brute, liable to do more damage in a few moments than he is worth. If a stallion, that has become vicious, he will be a courageous fighter, and a dangerous horse to fool with. Dexter, Lantern, Lady Thorne, Flora Temple, Goldsmith Maid,

and the majority of the great trotters, including some of the most enduring roadsters, are of this temperament. Yet it is one of the seemingly strange contradictions of nature, which I have noticed and found true in the horse, that this class, when managed skilfully and kindly, are among the very best and safest horses that can be found; making fine, reliable workers, gentle even for a woman to use: as the sharpest and brightest boys, when exposed to bad influence, become, as it were, embodiments of deviltry, hard to prevent or overcome. The Press horse of Gowanda, N.Y., the Omnibus horse of Buffalo, N.Y., the Malone horse of Cleveland, O., Wild Pete of Petroleum Centre, Pa., the Wilkins horse of New York City, and the Hillman horse of Portland, Me., — and in fact all the most vicious horses that I have handled, — have been of this temperament or a strong modification of it. The change it is possible to make in the character of horses of this class, when energetically and skilfully treated, is often really wonderful. Wild Pete, a nine-year-old horse, as his name implies, was so fearfully wild, savage, and unmanageable as to be utterly worthless. After an hour's treatment by me in a field (such a horse could not be broken in a barn), he was perfectly gentle, safe even for a woman or child to drive anywhere, and was used and let afterwards as a family horse. I will refer to these and other horses more particularly in another part of this chapter.

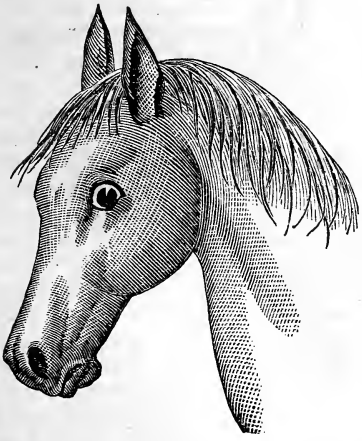


(No. 8.) THE HETTRICK HORSE. This head was sketched by Mr. Beard for the writer from life, and represents the most dangerous, striking, biting, kicking horse handled by him in New York city. It was impossible, with safety, to touch with the hand any part of this horse's body. After about forty minutes' treatment this horse was perfectly safe for any one to drive or handle The sketch was made five weeks after treatment, when he was then driven daily before a hack.

The NERVOUS TEMPERAMENT is characterized by large brain, fine sensitive nerves, small stomach, and feeble digestive powers; the head is large and well cut in every part; the eyes are large, clear, and sensitive; the ears are small and firm; the head is short from eyes to ears; the nostrils are large and thin; there is no inclination to put on flesh; the hair is short and fine. He is a spirited, energetic driver, does not bear the whip, and is easily made to overdo his strength. In a livery it will not do to let such a horse to every one, for a gentle, careful hand and voice must guide him.



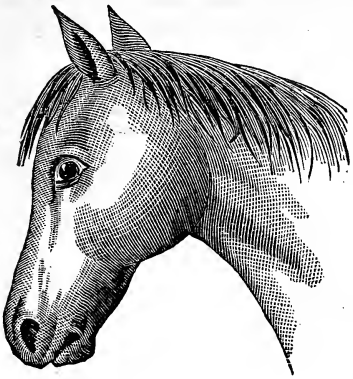
(No. 9.) A good sketch of an excitable disposition; when cool is quick and nervous; when warmed up is sulky and reckless. The horse that has the hang-on pluck.



(No. 10.) A less active disposition than No. 9, but, when frightened or excited, a very positive one.

These temperaments balance and modify each other to a certain extent, making the characters in accordance with the temperaments predominating. As we see a predominance of any peculiarity of feature and structure, we will see, when under excitement, a striking correspondence of disposition and character. For example, a small round eye, set well back in the side of the head; lids heavy, long from eyes to ears; ears long and flabby, set wide

apart; forehead narrow; a rounding nose, small nostrils,—and you are reminded of the sulkishness and treachery of the hog or mule. Whatever he does, when mad, is with the surly recklessness of this disposition. Such a horse will give no warning of what he will do: he will stand as if half asleep, apparently unmindful of your presence. The ears are thrown back, the eyes partly closed; but the expression of the eye, when noted, will reveal cause for danger, for what he does is with the quickness and treachery of a snake. If black, gray, or sorrel, and a kicker, he will be found exceptionably bad: ordinary treatment by the old methods of throwing, &c., will be likely to make such a horse a sour, dangerous brute. The opposite extreme is shown by a large eye, set well out in the corner of the head; the lids thin; the forehead broad and full, short from eye to ear; short or fine-pointed ear; narrow between ears; large nos-



(No. 11.) A horse of no spirit or action; will work in gently from the start. Is a gentle, willing worker.

(No. 12.) A regular barn-yard lunk-head. As a colt, will act sullen and stupid.

trils, — and you have a horse that is sensitive and impulsive, will not bear the whip, naturally gentle, but will not submit to abuse, because sensitive and excitable, and reminds one of the sheep. Such a horse can be won by kindness, if treated carefully, to do most any thing. Now, if we put more white in the eye, set it farther back in the side of the head, increase the length from eye to ear, make the ears heavier and longer, round the ends, and set them wider apart, you will have the naturally sensitive disposition, easily managed when treated kindly, but, excited or maddened, will show an under current of the most positive will and courage in extreme, reminding of the reckless bull-dog nature. With a large brain, heavy ears, but rather wide apart; eyes large, showing much white; eye-lids thick — a strong, powerful organization; in repose, quiet, but excited, quick, and dangerous, a sort of wildish, snorting expression and action, and you are reminded of the feline or cat nature. This is the horse that when bad is a reckless fighter. If black, gray, or a dirty white, heavy, hanging under lip and large nostrils, you have the devil if you ever found one in horse form. The whole action reminds of the quick, reckless, treacherous cat-nature, quiet in repose, but the fury of desperation when excited and warmed up. If much white in the eye, long inner corners, sneakish, sullen expression, you are sure to have a horse of the dirtiest, meanest nature, but one of the most wonderful endurance, — one that when spoiled, warned to resistance, you will have a horse that will resist all the ordinary methods of treatment.

Let me here give you a little special advice, though I shall call special attention to this matter in another part of this work. When you suspect having this kind of character, do not be alarmed, keep cool, and prepare carefully for every emergency. When ready, push rapidly, using one method of subjection after another, making every point thoroughly. The whole key is, to work so quickly as to make your point before the horse warms into a fight. This is one of the important points of real success, and, in particular cases, a point you cannot safely neglect. This was the key to my subduing so easily Wild Pete, and all this class of reckless, desperate fellows. If I only have a good yard or field, I make short work as I can of such. Many

a time have I astonished myself even by my success in the subjection of horses of noted vicious characters in this way. I have frequently been able to gain complete control of notedly-vicious horses in less than thirty minutes, so they would be gentle to drive in harness, and submit to being handled with perfect safety and ease in less than twenty minutes; a little kind treatment, and care in driving and handling, being all that was necessary to make them entirely safe afterwards for any one to use. But you must always handle horses that are really bad and dangerous out in the field or yard, where there is good sod and no stones. It adds to the difficulty and danger greatly to be confined to a barn, as I am frequently; and in an ordinary barn, with a crowd of people around, it is very difficult and embarrassing. The change I can make in the characters of colts and vicious, kicking horses, in illustrating my principles, seems wonderful to the class. The most successful horse-breakers are surprised to see how quickly and easily we can drive even a bad, kicking, runaway colt without breeching, letting the shafts come against the quarters, without showing any fear, or kicking. Of course, the great point is being able, as I can, to get absolute control of the nervous system; which I can do with entire safety, so that I can neutralize and restrain the action of the will as desired. Of the many thousands of horses in my varied career which I have reformed, I will here refer to a few of the most noted. The Press horse, referred to in my paper, was an eight-year-old sorrel, with large brain, deep chest, — a very strong, courageous animal, — owned by BILL PRESS of GOWANDA, N.Y. This horse, in breaking, became frightened, kicked, and ran away, and became one of the most furious, desperate beasts ever known in that country. Every effort having failed to break him; and it being deemed impossible to do any thing with him, Press brought him to Buffalo, twenty-four miles distant, where I happened to be at the time. The horse was so wild and dangerous, that, as the owner said, "ten men could not either put him or hold him in shafts." There was a good deal of curiosity excited to see if such a horse could be broken. I subjected him to first and second methods of subjections, pushing with rapidity. In fifteen minutes I had the horse

under complete control, hitching up and driving him gently. The lesson was repeated twice, the last being out of doors. He was sold in Buffalo, and remained perfectly gentle, entirely safe for any one to drive or handle. The Buffalo Omnibus Company's horse was a still more remarkable case. This horse was ten years old, a large blood bay, large, clear brain, finely-balanced organization, but a horse of decided courage, developing a remarkably vicious character. It was reported that he killed one man, and nearly killed several others, and became so dangerous, that it was decided to kill him. He stood in his stall for three months; and, during that time, no one had dared to enter it. The task of shooting him was put off from day to day. Mr. Ford, the agent, on my personal application, said I could have him, but I must take my own chances with him; that he would be sure to kill me, &c., if he could get at me. I advertised this horse extensively at the time (summer of 1870), and made a large class, when I handled him. I subjected this horse to the second method, immediately following with the first; and in fifteen minutes the horse was completely safe and gentle to handle. In a week he was brought back for trial, and he was perfectly gentle. He was used afterwards with entire safety. The subjection of this horse was regarded as a great feat, and was one of the best of my life. It was remarkable on account of the radical change, in so short a time, in the horse. The following editorial notice, and letter months after from the superintendent of the stable, will show the importance of his subjection: —

From Buffalo (N.Y.) "Commercial Advertiser."

Horse that killed One Man, and injured Several Others. — We yesterday afternoon visited the amphitheatre of Prof. Magner, the noted horse-tamer, on Carroll Street. We found there a large number of our most prominent citizens and horse-owners; and all manifested the greatest interest in the doings of the professor.

After the exhibition with his wonderful ponies, a horse belonging to the Omnibus Company — a most vicious brute, with a habit of biting, and striking with his fore-feet, from which those in charge have not been able to remove the collar or bridle for over three months — was brought for treatment. We understand, by the way, that this horse (a large and powerful bay) once killed a man by biting, and

trampling him under foot, and recently bit the hand almost off the person having him in charge. IN TWENTY MINUTES, in the presence of between two and three hundred persons, Prof. Magner reduced this brute to perfect subjection, so that the groom and himself harnessed and unharnessed him, put their hands in his mouth, and handled him in every shape with perfect impunity, the formerly furious beast being as docile as a kitten. It was a wonderful exhibition, as we can bear testimony.

Three months after the above experiment, Mr. Ford, the agent, wrote me the following letter: —

BUFFALO, Dec. 21, 1869.

PROF. MAGNER.

Dear Sir, — I consider myself in duty bound to write you respecting our once-vicious horse, "Man-Eater" as we called him. I have often said, "What a good thing it was we did not *shoot* him!" He was taken out of the stable twice for that purpose, when I, on both occasions, interceded in his behalf. He is now one of our *best horses*, as docile as a lamb. We work him double and single, as required. All this was caused from your few minutes' tuition.

Believe me, yours very truly,

M. FORD, *Agent*,
Buffalo Omnibus Company.

In the fall of 1869 I was in the oil-regions of Pennsylvania. When in Titusville my attention was called to a remarkably wild horse in Petroleum Centre, owned by a livery-keeper, named Smawley. This horse was known by the name of WILD PETE, nine years old, a strong bay pony, weighing about nine hundred pounds. This horse was entirely wild, every effort that could be made to break him having failed. He could not even be harnessed, and was really worthless. When I went to this place WILD PETE was thrown upon me as a menace; and the difficulty was, I had no place there where I could handle such a horse with success and safety. I induced Mr. Smawley to lead him up to Titusville, seven miles distant, where I proposed taking the horse in hand out on the trotting-park. After one hour's effort I had the hitherto Wild Pete completely gentle. I drove him back to the city, and that evening to Petroleum Centre; and he has been since then as gentle and safe a carriage-horse as any in the stable, and has been, in fact, used as a family carriage-horse.

In the winter of '70 and '71 I went to Cleveland, Ohio. I was received by the citizens with so much prejudice, that I could not do any thing. There was owned in the city a well-bred rangy, gray gelding, called the MALONE HORSE, which was known to be the most desperate, kicking runaway ever known in the West. Being a promising trotter, every effort by the best trainers to break him had failed. To drive this horse gently would be a great card; but I could not get him for the experiment without purchasing. I got him by paying a large price, knowing I could break him, and sell him when gentle at what I paid, which I did; and not only made this horse entirely gentle in less than an hour, but I trained him in a few hours to drive without reins, and did drive him the next day on the square at 12 o'clock, M.: showing this hitherto desperate horse to be one of the gentlest in the city; creating thereby so great a sensation that I made a class of over two hundred that afternoon, and was the sensation of the city for several weeks, as seen by the following extracts from the press of the city of that date: —

From the Cleveland (O.) Leader, February, 1870.

"But the great sensation of the evening was yet to come, for which all were anxious, as many present knew the vicious nature of the beast to be subdued: in fact, there were one or two present who had had good cause to ever remember the great runaway and kicker known as the 'Malone Horse.' He is a gray gelding, perhaps sixteen hands high, of great beauty and strength, and a will and determination rarely found in a purely American breed of horses. His owner hesitated at the last moment to give his consent to the application of the system. Mr. Magner was determined to break down all opposition by a feat of skill, and at once resolved to buy this horse for a subject. He determined to have a subject, asked the price of the horse, which was announced to be $500. 'I'll take him,' said the professor, and at once handed over the amount.

"At this stage of the proceedings the excitement was intense, and many speculations were indulged in as to who would prove the victor, the man or the horse. In less than twenty minutes from the time that Prof. Magner laid his hands upon his subject, the horse was as gentle as a lamb, and as easily controlled as the most reliable family horse."

From Cleveland Leader.

"A SERIOUS ACCIDENT. — While Prof. Magner was driving along the street, following after the 'Arlington' band-wagon, people would call out to him, 'I say, Mister, yer holdback straps are gone! yer'll have a runaway if yer don't look out.' And while crossing the rail-

road track on Ontario Street, to avoid the jam of teams, &c., the rear wheels of his buggy were struck by a passing street-car; the axle-tree so bent that one of the wheels would not revolve, and the driver, buggy, and all precipitated forward on to the horse, which three days ago a dozen men could not have held under such circumstances, but with no bad results further than stated. The horse did not seem alarmed, and bravely stood while the wreck was cleared away from the track, without so much as an offer to kick, fully proving the thoroughness of Magner's system."

In the fall of 1873 I was in Mansfield, O. In all my experience I was never met with such prejudice and hostility as in this town. There was a company of business men there, represented by McVay, Jolly, & Co., who went to Kentucky, and bought of L. L. Dorsey, the noted breeder of Gold Dust stock, three young mares and a stallion, for the purpose of breeding trotting-stock. One of the mares was a sorrel, three years old, and so noted and dangerous a kicker at this age, that she was purchased at a greatly reduced price in consequence. Being a fine colt, with a right to trot fast, every effort was made to break her. The most skilled horse-breakers were employed; and when seven years old, when I was there, she was given up as worthless, and considered the meanest and most treacherous kicker in that country. She would squeal and kick when the barn-door was opened; and it was out of the question to go into her stall safely, and no one attempted to do so for years. To have a little fun with me, and "take the starch out of me," as Mr. McVay afterwards stated, the owners told their trainer to join my class and bring the mare, not supposing such a mare could be broken; and being too mean to breed from, she was regarded as worthless, and they did not care if she was abused and injured. All sorts of rigging and treatment had been tried upon the mare to no purpose: she was hampered in every possible manner, including the most severe whippings, through all of which she had fought successfully. She was of a sorrel color, seven years old, of a medium size, extremely strong, fine texture of body: though abused most fearfully, she did not show the least blemish or injury; altogether she was a perfect model of great vitality and endurance. The eye was of medium size, well back in the side of the head, heavy eye-lids, forehead

narrow, very long from eyes to ears, ears long, wide apart and thrown back and out. The nose was a little rounding, nostrils large, heavy under lip. She was one of the best types I ever saw of the cool, cunning, reckless fighter. In about forty minutes I had her under complete control, driving her in the street, to the surprise of every one, perfectly gentle. McVay met me in Newark, O., about a month afterwards. Said he, "Magner, by G——, my mare is broke, and is to-day the safest and best mare in Richland County. I use her for my family driving. Going down hill a while ago, with my children in with me, the breeching broke, letting the shafts upon her heels. She never moved or kicked, or offered to: the change is wonderful, and all the result of what you did with her." But he never said, "Thank you," or gave me a dollar, though I had added hundreds of dollars to the value of the mare. After subjecting the mare to treatment before the class, and driving her in the street, I ordered the trainer to treat her kindly, test her thoroughly, and if necessary repeat the lesson until he was sure of success. In any event he must treat her with great kindness, to take no needless chances of failure. He did not find it necessary to repeat the treatment, simply drove her a few hours daily, and the reformation was complete.

When in New-York City Mr. Hettrick, who kept a livery stable, corner Thirtieth Street and Sixth Avenue, bought on Twenty-fourth Street a remarkably vicious Western horse, for a mere trifle, on account of his vicious character. This horse was a large, high-headed sorrel: he was so very wild and dangerous that I found it impossible, even when tied by the halter to the centre-pole of the canvas, to touch any part of his body. He would strike and kick as desperately as any wild, vicious horse from the plains. He would snort, strike, and kick at any one who went near him. It was with great difficulty that I could get my hands upon him safely; but once able to get to him, I had him under complete control in thirty minutes, and he was perfectly gentle afterwards to drive to carriage or hack. As a good type of bad-looking head and disposition, I give an accurate sketch of this horse's head, taken five weeks after being broken and used to a hack daily. I will refer to but one more interesting

case, because of recent occurrence, — the Hillman horse, of Portland, Me. This horse could not be handled at all. He would kill, if he could, any one going near him. A grand-son of Gen. Knox, known as one of the best trotting sires in New England, and one of the finest formed colts in Maine, every effort was made to break him. He would bite, strike, and kick ; he had the eye and expression of a bull-dog, and was known throughout the State as the most dangerous horse ever known in New England or in this country. He stood for nine months in a building, without any hope of ever being broken, unless I could do it. Yet I was able to bring this horse under the most complete control in less than thirty minutes, so that others could handle and drive him afterwards with entire safety.

NOTED HORSES. — HILLMAN HORSE.

The following from the Portland "Argus" and "Press," of that date, will give a good idea of the desperate character of this horse, the importance of the feat of his subjection, and the success of the experiment.

From the Portland (Me.) Argus, Friday, June 23, 1876.

Yesterday morning Prof. D. Magner, whose skill as a tamer of vicious horses is almost proverbial, accompanied by a number of well-known gentlemen, left this city and rode out to the residence of Rev. A. P. Hillman, to try his skill at subduing Mr. Hillman's stallion "Jet," which has the reputation of being the most uncontrollable and the most savage dispositioned stallion in this State.

On arriving at Mr. Hillman's quite a number of the neighbors were found gathered about the stable, anxious to see the handsome but vicious "Jet" led forth from the box-stall in which he had been kept ever since last September. The stall in which "Jet" has been kept in close confinement for nearly nine months past, is so arranged that his food and water can be given him without any chance for the fierce brute to fix his glittering teeth into his feeder's arm or shoulder, or strike him with his feet.

When Magner first entered the stall, the demon in the brute showed itself in the most striking manner by frantic efforts to seize him with his teeth, rushing around his narrow quarters like a caged tiger, while the red flash of his wild eyes would have deterred many strong men from approaching him. A large number of people interested in horses, including nearly every physician in the city, were assembled at this place, on the stallion's arrival.

At ten o'clock, the time appointed for the trial, Prof. Magner

cleared the place of all spectators, excepting those holding tickets of invitation from the committee having charge.

Of course the peculiar method, by which in a wonderfully brief time, the most savage stallion in the State was so completely conquered that he was harnessed to a carriage and driven by the Professor around the enclosed yard, fast or slow, as suited, as well as backing, stopping instantly at the word "whoa," besides various other things, all proving that the demon had been, temporarily at least, exorcised, cannot be stated, but it was surely done.

The savage brute, after undergoing Magner's course of treatment, would allow himself to be petted and caressed by any one present, without the least manifestations of ill temper.

From the Portland (Me.) Press.

The announcement that the well-known Hillman horse was to be trained at the South-street stable, drew a large crowd yesterday morning, as this horse is known to be one of the worst cases on record, Some few gentlemen, including representatives of the morning papers, took carriages, and drove out to the residence of Rev. A. P. Hillman, near the Reform School, to see Prof. Magner in his first attempt to handle the animal. In this condition "Jet" was led from the stall for the first time in eight months. The line of march was taken up for the city, a man on either side holding by the cords attached to him. All the residents on the way were in waiting to see the wonderful horse pass; and on reaching the city a large crowd followed the horse and his trainer to the stable.

The stable was thronged on the arrival; and after giving the horse a slight rest, Prof. Magner commenced upon him. We cannot give the method of treatment: suffice it to say, he worked on the horse just twenty-five minutes, when the striking, dangerous horse was as mild as a lamb. He was turned loose, and wandered about among the horsemen as though he was an old truck-horse. The trainer jumped upon his back, and afterwards harnessed him to a wagon, and drove about without the least strap to keep the wagon from striking his heels.

"The rear of the procession was brought up by the recently tamed Hillman stallion. In all the noise and confusion, he went along as gentle as an old family horse." — *Portland Advertiser, July* 5.

The Famous Hillman Horse in the Procession.

"Last, but not least, was Prof. Magner, driving the Hillman stallion. This was the interesting part of the procession, considering that the horse which he was now driving as gently as any family horse was a few weeks ago considered wholly unmanageable." — *Portland Press, July* 6.

EXACTING EXPERIMENTS.

I could refer to a large number of remarkable cases, showing the power and value of my treatment, in reform-

ing and making entirely gentle, horses that had defied for years the greatest efforts of the best horse-breakers. It is a matter of almost daily occurrence, in making experiments before the class, to hitch up and drive in harness gently, in from ten to twenty minutes, horses that either never had been in harness, or had been so badly frightened, and made to kick, as to be entirely unmanageable. The average of such, are, in fact, so easily made gentle by my treatment, that we take in hand before the class, daily, several of the most vicious colts and horses that can be produced ; and without exception, make the worst of them to drive in harness without offering to kick, though the shafts strike the quarters freely, showing the most perfect control. It is no exaggeration, or egotism, to assert that such results are beyond all comparison the greatest of the present or any former age, in the art of training and reforming horses.

I give the widest latitude for experiments; and it is seldom a horse or colt is found of a character so vicious, that I am not able to control and drive him gently in from ten to twenty minutes.

There is a point I would here call your attention to. It is that horses that have the reputation of being bad, and are really vicious and dangerous, are not always, by any means, the most difficult to break or require the most time and care. The most skill and the most effort will often be demanded in the management of cases that are not known to be bad or vicious.

It is the cool, almost calculating fighter; the mare that seems gentle in all places but one, and then she is, perhaps, lightning itself in contesting the efforts ; perhaps it is the balker, that will resist only at one point, at all others a pleasant worker. While the average of these minor habits yield readily to treatment, — a matter, perhaps, of a few minutes' work, — you may find cases that will call for as much or more real skill and effort to break up than is necessary to break horses regarded and known to be very bad. If you find one of these give-and-take, treacherous cases, you must make your point clear and sure ; make your fight quick and decisive if you can, and always in the position and place of resistance.

EXPERIENCE AND CONFIDENCE NOT TO BE DEPENDED UPON.

When about leaving New York, a well-known gentleman, a personal friend, requested that I would remain a day and show a horse-breaker, a man who attended all the horse-taming schools in that city, a naturally good fellow, but crude in his ideas, how to manage a trotting mare he had just purchased. She was high-toned, eager, courageous, and plucky, and had been subjected to severe treatment, but she would resent the drudgery of any heavy pulling or rough handling, and was acting badly. This man worked her, and insisted upon hitching her to a heavy express wagon. That is just what you should not do with this mare, I insisted, and you will only spoil her by persisting in doing so. I obtained a light sulky, walked her gently at first, then let her out on a trot, and soon could let her out as I pleased, under any excitement, without trouble. The mare only needed working up slowly and carefully, and with, perhaps, a few touches at the right time and place, would have worked in nicely; but worked as she had been, and by such a man, I should regard it almost a miracle to make her work successfully without breaking down her constitution, or spoiling her.

A three-year-old thorough-bred colt, of a very high-strung, bad disposition, was presented in New York to be driven in harness. I subjected the colt to treatment, and soon had her in harness; she knew nothing of the bit or rein. Being overworked and limited in time, I told a man who had been with me for years and worked well, to hitch up and drive this colt gently, and by all means not to excite her, — to take his time, work her slowly; that on any account he must not excite her. But treating her as he would a common colt, and getting her mad, she resisted the most severe and abusive treatment, which he, by losing his temper, inflicted in his effort to drive her. The consequence was, the colt was not fit to be seen or handled for two weeks. The owner generously overlooked the matter; and when over the effects of the abuse, in twenty minutes I was able to drive her as I desired, gently, and did so successfully in the presence of her owner, without the least excitement or trouble.

I refer to these cases, to show that assumed experience is not all that is demanded. Behind all this, patient, sound judgment is necessary in working horses of a sensitive but courageous character.

A PECULIAR CASE.

In my long experience, I have had many peculiar phases of equine nature to deal with; to one or two of a very unusual type of resistance I will here allude. In the winter and spring of 1868, I made a campaign in Mississippi, at a place north of Pickens Station. I had a large class and only one subject, a sleepy-looking, nine-year-old sorrel, of medium size, half mustang and half thoroughbred. He worked nicely until put in harness, where he kicked with all the desperation of a maniac. It was a cool, sullen, desperate struggle: beyond all comparison the worst I ever had found. I could not drive the horse in the time I advertised, without his kicking, and offered to give each his money back, but they would not let me off in that way. They said, "We want you to drive that horse, as you advertised." I did every thing possible to break him, but it was all a complete failure; he would kick in defiance of all I could do. I worked all day upon the horse, and when night came could not see that I had made the least headway toward success. He would kick in the same cool, terrible manner: when held too closely, he would settle down on his belly like a hog, and sulk. (Did not have passive treatment then, which would have controlled this case easily.) I did all that human skill could do, and it was a complete failure; and, with the state of public feeling shown, I felt my life would be endangered if I failed to subdue the brute. The next morning I felt sore and tired. After breakfast I went out and found the horse looking and feeling as well as ever; and, to look at him in the stall, he seemed as gentle as any family horse: his mouth only showed the effects of the struggle; for that was pretty sore from the use of the breaking-bit, which I used then in a much less effective form than I do now. I put on the harness, and a gentle, sharp pull made him give to the bit freely. My blood was up, and I sent that horse back against the reach of an old lumber wagon

which happened to be near. The first the horse knew, I had him back between the wheels, and his hindquarters against the reach, which came well above the gambrels. The fellow tried to kick at least fifty times; but with the soreness of the mouth and the power of the bit, I was able to keep him so tight against the reach, that he could not kick over. Finding himself mastered, he gave a sort of shiver, and my success was complete, for he could not be made to kick afterwards. He was completely docile. A week after I drove him on the square at Carlton, thirty miles from there. He proved absolutely gentle and safe, and I was voted "all right." I did not know then, what I have learned since, that the point of success in subjection of these cold-blooded fellows is by one or two sharp lessons, to make them sore and sensitive, when they will work easily: no matter how reckless and sulky they act at first, when they get cool, after a sharp lesson or two, they will work in nicely.

When in Buffalo, N.Y., a horse was brought in that would run away. He had been gentle: but, getting excited, learned to resist all control of the mouth. Power-reins and bits of the most savage character were alike unavailing. When warmed up, he would run against the bit and get away, regardless of the pulling of several men on the reins. Under canvas the horse submitted to the breaking-bit readily; but when I took him out of doors, as I suspected, he was regardless of all restraint, lunging against the bit desperately. But having taken every necessary precaution for safety, I commenced back again, getting good control on a walk. I gained little by little, until I could let him out on a sharp trot, and bring him back easily, requiring an hour's work. Next day I knew would be the test of deciding the contest. Never before did I find such savage, cool resistance; and my only resource was to take time and intensify my impression upon the mouth, which was my only reliable resource to make the horse safe. Next morning I found the horse, after warming up, to be fearfully wilful and reckless. I forced him again carefully, repeating the same routine of working up from a walk to a fast trot and run until there was no inclination to continue the contest, — finally exciting him all

I could, until there was no inclination to pull or resist the bit. This time I worked faithfully several hours to make my point, but was completely successful. This horse was of a nervous-sanguine temperament, a bright bay, medium-sized eyes, forehead rather narrow, long from eyes to ears, a good deal of white in the eye; as a colt was gentle, broke in easily (so reported), trotted quite fast; from the ambition and excitement of warming up in driving, pulled so hard as to get away, and afterwards became perfectly regardless of all control of the bit. Now I am able to make horses of this habit, with rare exceptions, entirely safe and gentle in from thirty minutes to an hour. The point was simply to hang on, and repeat.

SULKY COLTS.

There is another type of extreme, usually colts, I frequently find, which are apparently very bad, and which I hate above almost any other horse to handle before a class; and yet they are always sure to work in safely and nicely by taking time and repeating the lesson. The colt that will at first act nervous and excitable, when warmed up will show a surly, mulish disposition, perhaps has learned to throw himself down. I will refer to the best case of the kind we had during the past year. When at a little point in Maine, called Exeter, in September, 1876, a four-year-old sorrel colt, of medium size, was brought forward by the owner, who proposed joining the class if I would handle the colt. The colt seemed very nervous; was led by a big rope halter. The skin was torn in several places on the hips and legs. When harnessed the colt would lunge, and throw himself over backwards: he would kick fearfully when an effort was made to handle the feet, or shoe him. Bound to shoe him at all hazards, they put him in an ox-frame, fastening him securely; but he struggled so violently that it was found necessary to let the brute go without being shod. Both hocks were enlarged, showing blood spavins, from the strain and recklessness of his struggles. He would break his halter, or pull himself down recklessly, when hitched. The colt, in a word, was entirely unmanageable, and really worthless, having resisted every effort to break him. I described in

detail the exact type of the character, and how he would act under excitement, or not. There was no other horse to illustrate principles with; and it was a matter of curiosity to see if the colt would act as I predicted. There is no great difficulty in making colts of this nature gentle; but, as they warm up, they become so sullen and reckless that they will not do any thing, paying no regard to the sharpest cut of a whip, or of other means of producing pain. The ears will lop out and back, like a hog's; the legs are spread; the eyes are sullen in expression; the whole impulse is one of surly desperation, lunging against or upon any thing, refusing to be led, and throwing himself down. It is never safe or prudent to handle such a horse before a class, as they think it is a fault of the treatment that the colt should act so sullen. The majority of people cannot see any difference in horses. They are expecting, any way, to see a horse give right up to treatment, and are disappointed if there is any apparent want of success. No matter how bad a large-brained, nervous-tempered colt, he will submit readily to treatment, and drive with entire freedom: but the cool sulkers at first will not do any thing; and it would seem as if they could not be made to work gently, yet with a little care, when they get cool, they always work in safely and surely. But the class can never, though good horsemen, see this, and are liable to find fault, and expose me to great embarrassment. In this case, after an hour's effort, it was only with the greatest difficulty the colt could be made to move or drive in harness, and the owner was disappointed because I would not guarantee that he could be hitched up to a carriage and driven home, and be gentle afterwards. Two days after this the colt was hitched up and driven gently to a point seventeen miles away, where I was at the time giving an exhibition; was driven in the crowd without breeching, entirely gentle, and proving gentle, was sold a week after for a good price. If a colt or horse develops any of these extremes of resistance, you are not by any means to be discouraged, or think you must fail. Go to work more cautiously and thoroughly: do not be in a hurry; make the most of every point gained. Take your time; for time you must have to get the blood cool, so that you can

appeal to the intelligence, and act with success upon the better part of the nature; and you must succeed.

I never drive a horse, or advise driving one, while he is touchy, and liable to try to resist control. I aim to make the foundation first of the most perfect docility, so that if the breeching should break and let the wagon come against the quarters, or any other unusual cause of fear occur, to have the horse under such perfect control, that he will submit to command without showing fear or excitement. If I cannot do this safely after one treatment, I repeat it, and test the horse until I can. This point of being patient, careful, and thorough, is what is wanted. When I took in hand the famous Malone horse of Cleveland, I was not satisfied to stop when the horse drove gently: I subjected him to the most thorough and exacting trials to prove his docility. It was because of this thoroughness of treatment, which did not in all require more than an hour's time, that I was able to insure his entire safety.

At one time a passing street-car ran into my wagon, and crushed it against the quarters. At another, when trotting rapidly, one of the clips connecting the shaft to the axle broke. The horse stopped instantly at command, without showing the least inclination to kick or run away, — one of the most exciting trials a horse could be subjected to. The object should be to make the horse really safe; and it is the highest proof of skill to do this without accident or failure.

INSANITY.

Another point for consideration is, that the horse is liable to be insane, or of having the nervous system broken down, and that such causes of derangement are traceable to definite sources. To a superficial observer, all horses that look alike appear the same to them; and they are surprised and vexed if they find a horse that does not seem to yield to the most severe and persistent treatment, especially treatment that greatly excites the nervous system. There is, in the first place, a possibility of hereditary causes. Like produces like, is a fixed law of nature, from which there is no deviation. But nature may be so disturbed and deranged in her actions, as to prevent, if

not destroy life. If a stallion, though gentle, is whipped and made vicious, the result is likely to be seen in the bad disposition of his colts. If a mare subjected to a great shock of fear, or other marked causes of disturbing the action of the nervous system, the effect of it is likely to be strongly shown in the character of the colt, by its being unusually nervous and excitable. A shock of fear may be made so great as to cause a horse to die in his tracks. I could refer to a number of horses dropping dead from the fear of a train of cars or an engine coming upon them suddenly. I would call your special attention to the points of fear under that head, which I would ask you to read carefully.

BE THOROUGH.

A timid man, who shows want of confidence in himself, is not adapted to the task of having much to do with vicious horses. In reality it requires not only the most accurate judgment, but the greatest firmness and determination, to excel in the control of horses. If a horse is so bad, courageous, and determined that he beats every one, of course it is no easy or trifling job to break such a horse, and do it well, without injuring him, and one, too, that does not infrequently involve great danger. Suppose there is danger, and you fail once or twice: that is nothing to be discouraged at. This is the kind of trial, when you succeed, that proves you are better than common men. One of the great points of success is, you should not fail to understand your treatment correctly, and just how to carry it to a successful end. Mere power is not so much the point, as acting most skilfully upon the brain to win the full co-operation of the animal's understanding and better nature to your aid. At all events, you must be careful and patient, taking time, and repeating until you are sure of success. Every time you fail you will learn something; and if you will persevere, as I have, guided by my instruction, which makes success in overcoming these possible difficulties simple and easy, it will be your own fault if you are not equally successful. Candidly, whatever I have of skill or ability in the control of horses over others has been all learned by failures. I have persever-

ance. I tried and kept trying, regardless of failures, doing as well as I could; and in this way succeeded. The ability to write these pages, such as I have been able to make them, has been learned only by perseverance. This is the quality of true success. It is the quality that tests and determines most truly the strength of the character, and should never be forgotten as a primary and necessary condition of overcoming great difficulties; and the greater the difficulty, the greater and more gratifying the success. It will not do to be fool-hardy or venturesome, when danger can by a little extra time and care be guarded against.

COURAGE.

But a nervous, timid feeling, which the horse can in the least detect, should not be shown in the language or actions. I would not advise taking the chance of driving or riding behind a horse that is nervous and dangerous, liable to kick, lunge ahead against the bit, and get away, because you do not feel afraid, and would not have any one think you cowardly. Think nothing about this. First, remember, no man, nor even several men, can hold a horse that has learned to take the bit and run away. The point is, have you sure control of the horse, should he try to resist you? If you have not, do not put your strength against his, and expose yourself to trouble and failure, as well as make the horse worse by the experiment. You must be cool, and gain yourself a sure, safe position of control by the proper subjective treatment. It is your own fault if you fail; and if you fail it will be because you do not get control enough of the horse before you put him to this trial. I see how you are likely to be mixed, by asking how is it possible for you to drive any colt or horse, then, in fifteen or twenty minutes. That is not the point. I am compelled often to take next to desperate chances; and, in addition, I know almost to a certainty, as soon as I see a horse, what he is, and what I can do with him in a given time; consequently I make no mistakes, and succeed. Should I find a horse I could not safely control in that time, I do not chance the trial; I persist or repeat the first course, until I know I have

absolute control. A mustang, or really bad stallion, or a horse of a vicious mustang nature, is not prevented from attacking or kicking a man, because he may show courage. Stallions and horses of an intelligent, aggressive, wide-awake character, are very sharp in their perceptions, and rely very much on the bullying plan of fighting back, and are easily disconcerted by a sharp, confident expression of word or action. The point is, to trust yourself as far as you can do so safely.

A short time ago a young horse was brought in for me to try treatment upon before the class. This horse was never handled or harnessed, and I saw at once he was a very dangerous, bad brute. I called special attention to his dangerous character; yet, to a casual observer, he did not seem more dangerous than an ordinary unbroken colt. The owner, with much confidence, questioned my judgment; said he never had any trouble with him, and could handle the colt safely. He was about going forward to put his hand upon the colt, saying, he "was not afraid of any horse." I said, "Hold on, sir: you do not see your danger. I do, and will prove it to you; and then, if you think best to go near the horse, you can do so; but I warn you, it will be at the hazard of your life." At the same moment, I touched the horse as gently and carefully as I could with the end of a pole, when he sprang into the air at the instant, kicking and striking at me in the most fearful manner, showing his extremely dangerous character. The man turned pale, saying he would not have believed it possible that the colt could be so vicious. "Why," said he, turning to me, "he might have killed me." After that I had plenty of room, and no volunteers to assist; yet, in less than fifteen minutes I had the colt entirely gentle. If you cannot see and read the horse's intentions clearly, and feel that you are safe, the best way is to go slow, feel your way, and be thorough.

GREAT VALUE OF THIS KNOWLEDGE.

In accomplishing easily and with certainty an end that has so large and direct an influence upon the prosperity and happiness of all classes of society as my system of educating horses enables, the correct dissemination of it is of the greatest importance and value.

The horse is in such general use, in connection with the great difficulty experienced in making him docile and safe as a servant for the various purposes of the farm and family, and the many accidents caused by the use of horses that are in consequence unavoidably unsafe. In addition, the great anxiety, danger, and loss experienced from such causes, make a knowledge of principles by which all those difficulties are easily overcome and prevented, a source of the broadest humanity and value to all classes of society. First, it saves at least nine-tenths of time necessarily employed by the old system, which is seen to be so defective. Second, with the great advantage of time it enables absolute security, as well as certainty, of making the most vicious colts and horses gentle and obedient to control. Third, it removes all those causes of annoyance and danger resulting from the old methods of breaking horses. Fourth, it enables reforming easily, horses that have been given up as worthless or unsafe for use. Fifth, it adds largely to the value of horses. Sixth, it secures the greatest possible kindness in the education and use of horses.

It is the work of months, and often of years, to break a colt, and even at that a large proportion of the best by nature are but little better than mere impulsive, dangerous machines, ready at the least little derangement of harness or other cause of fear and excitement, to kick or run away. The consequence is, an unavoidable accident, the smashing of wagon and harness, the horse likely to be completely spoiled and made worthless, and the possible serious injury to or loss of life.

There is nothing the farmer fears more than the task of breaking colts, because, while he realizes the difficulty and danger attending it, he has no remedy beyond that of being careful and patient, and the whip and club law. He does as well as he can, or employs some ignorant horse-breaker who cannot do any better. The majority of so-called horse-breakers, from ignorance, violate the simplest laws of addressing the animal's nature and reason. It is a struggle of the merest brute force, that results so often in injuring and spoiling the best colts, by nature, in breaking. There is no lack of authority telling how to con-

struct a steam-engine, and run it, or make a machine by which grain and other farm products can be planted and gathered most economically and easily, — in every line and channel of husbandry, scientific and mechanical, there is no lack of the most exact rules of guidance. But in this of the principles and laws of *educating* horses, so that the difficulties and causes of annoyance in their management are removed, and there is certainty of success in securing their obedience and docility, there is no recognized authority or hardly a line of reliable guidance, because not known.

When I advertise and assert I can control and drive, with but very few exceptions, any kicking, runaway colt or horse, in from ten to twenty minutes, and make such so gentle that he will not kick or resist control, though the shafts should strike his quarters, or attempt to run away though subjected to extreme causes of fear and excitement, to which but few horses that are considered well broke would submit, and perform other feats of control equally great in the subjection of vicious horses, the most intelligent horsemen and farmers shake their heads, and regard the assumption with the most positive unbelief. Yet I prove nothing is simpler or easier to do; that an ordinary boy or man, who has a little nerve, and is patient, can control the worst of horses without any difficulty worthy the name. When I have good subjects to illustrate properly the effects of my principles, I give such convincing proofs of all this that there cannot be any question about it. Now, I only prove how easy it is to make horses of even a very vicious nature, safe and gentle, when treated in a sensible, reasonable manner.

When this simple truth is opened clearly to the mind, then, and not till then, are the real humanity and value of my instruction fully appreciated. The surprise, too, is great, that a horse can be made docile and obedient so easily, quickly, and surely, without any severity that is at all dangerous, and that every step of success in the subjection and control of the most vicious horses is held and fixed by *kindness*.

MORAL BEARING.

In its true sense, there is no duty which appeals more forcibly to the better faculties of the mind, than this of the scientific education and subjection of horses. We have to study the principles of addressing and controlling the animal's reason most successfully. We are not only able to see the necessity and value of restraining and controlling our own bad impulses of feeling, but of being governed by the higher faculties of reason, to win success. It is seen that to be hasty and passionate, to be excited by drink, or other causes, to whip and abuse the horse, while it does not show or teach any thing that is desired to be done, is not only a direct cause of exciting the animal's fear and bad nature, and thereby of being spoiled, but is a cause of the greatest abuse. Now, making a horse stubborn and unmanageable, will naturally make a man mad and reckless, and thereby trouble is only increased, which defeats success; while, guided by right principles, and according to the laws of the case, we are all the time elevating the better side, and restraining the worst side, of our nature. We are at once not only able to remove and overcome all the main causes of annoyance and failures by this knowledge, but it serves to bring in all ways to view most clearly the light of self-examination which stimulates thought, as well as sweetens and elevates the feelings to a greater exertion for success.

Will you be patient? Will you try to be guided by the principles and laws which I have shown to be so simple, yet so far-reaching and valuable, that have cost me so many years' experiment and persistent labor to learn? Will you bring into play the courage and will, the discrimination and care, which is necessary and characteristic of all true and great success? If you will try faithfully to bring out the ingenuity and strength of your nature, in doing this, success is sure. If you will not, you must expect to fail.

THE COLT.

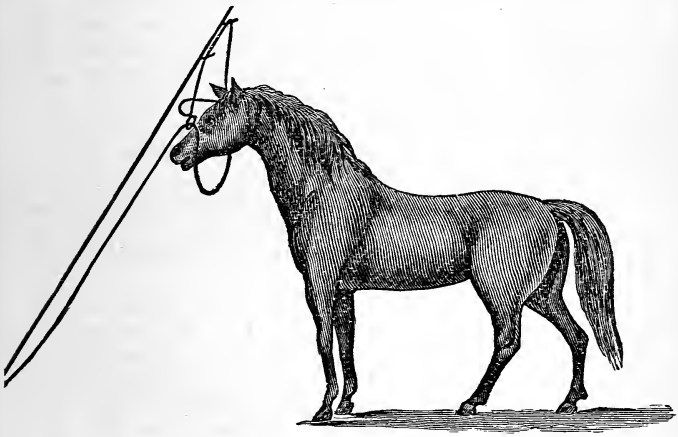
THE first point to consider is, what is the disposition and character of the colt? Is he very young, entirely wild, very large, strong, and dangerous, or a wild, nervous, timid one? Is the colt "way-wised" to the halter, or otherwise wild? The first point with me is, what have I to deal with. This point considered, I go to work, taking the most direct and simple course of treatment. The first condition is safety to self; second, safety to the colt from any physical injury; third, what will the case require, to enable his perfect docility? It is but a trifling matter to make an average unbroken colt, of a nervous, intelligent character, so gentle as to submit to being led by the halter, gentle to handle and drive with perfect safety in shafts, in fifteen or twenty minutes. Just as soon as he can be made to guide to the bit and reins, he will drive, even without breeching, allowing the cross-piece of the shafts to come against his quarters, the reins under the tail, etc., without showing the least fear or resistance from such causes. Even colts of quite a bad character, we do all this with, in illustrating principles before the class, daily, and regard it no feat to do in fifteen to twenty and thirty minutes. As before stated, as soon as the colt can be taught to *rein*, and submit to the control of the bit, almost so soon he can be hitched up and driven without breeching. The real point to be considered in the training of the colt is, how soon can you get a good manageable mouth? While this is the point I look at, back of it is one that cannot be safely neglected, since it is at the foundation of your ultimate success; namely, making the colt absolutely gentle. He must not be afraid of any thing upon, over, or against him; to have the feet taken up and pounded upon; to submit to the shafts or any thing else

striking the quarters or legs without fear, etc. Doing this thoroughly and well, is the first true step of success; this accomplished, you are ready to go on with the training, but not before. This is the defective, weak point, that seems so difficult to do; the failure of which has been, and is, the great stumbling-block of difficulty to trainers and horsemen. They cannot see or understand why a horse, after months, perhaps years, of good character, should, without warning, at some trifling cause of derangement in the harness or wagon, cause the most violent fear and resistance, which he will not afterward forget. These are the complaints repeated many times daily to me, by good-thinking farmers and self-styled horsemen, who, of course, in their own estimation, know all about a horse. A horse reasons only from the impressions of experience; and this is his weak point, and the key of managing him successfully. The farmer knows his cow will not submit to be milked but on the right side; she may have been milked for years successfully, yet to attempt some morning to milk her on the other side, would be almost sure to excite her to kick and run away; she was broken or trained to be milked only on one side, and remains unbroken so far as the other side goes.

The principle is precisely the same with horses in reasoning; consequently, making one part of the body gentle, does not, by any means, in a horse of spirit and sensibility, make the opposite part so. Now, the forward part of the body, from necessity, is accustomed to be handled, but seldom the hind quarters; and unless the sensibility and fear of the hind parts and flanks are thoroughly overcome, to do which properly at the start is indispensable, there is sure to be trouble and danger of accident from any of these common causes of derangement, exciting the fear, which is liable to occur at any time in their use. It is not always possible to guard against the breeching-strap or something else breaking or giving out, that would cause the shafts to come against the quarters; and the horse, not understanding what it means, is in consequence frightened, and the result is an unavoidable accident, perhaps serious loss. All this I accomplish in the most thorough manner, by treatment that makes the most

powerful horses completely safe in the hands of an ordinary man in a few minutes, without the least danger or abuse. I subject the colt simply to the second method of subjection, after which, as soon as he will lead promptly, which I make him do easily with the war-bridle, I put on the harness with breaking-bit, to which there is soon complete obedience; and in ten or fifteen minutes, an ordinary good colt that had never been harnessed, possibly not haltered, will act as gently as any old horse.

If a strong, wild, dangerous colt, you must proceed cautiously. The first step is to turn him into a small yard



Haltering the Colt.

or barn, where there is no chance to run very far, or break away: it would alarm him too much to try to catch and hold him to put on the halter, and besides, there is danger of being hurt. This difficulty you can easily overcome as follows: Get a light pole, ten or twelve feet in length, or as much longer as you can use to advantage, if the colt is very wild or dangerous, and drive two nails into it, about eight inches apart, the first about an inch from the end, with the heads bent a little outward from each other. Take a common rope halter, with a running noose, pull

the part which slips through the noose back about two feet, and hang the part that goes over the head upon the nails on the end of your pole nicely, keeping hold of the hitching part, which must be as long as your pole. Your halter is now so spread and hung upon the stick as to be easily put on to the head. If the colt is not excited or frightened, as you extend the halter towards him he will reach out his nose to smell and examine it; and while he is gratifying his curiosity in this way, you can bring the slack part under his jaw and raise the pole high enough to bring the halter over and back of the ears, when, by turning the stick half way round, the halter will drop from it upon the head. This will frighten the colt a little, and cause him to run from you; but this will only cause the slack part passing back of the jaw to be pulled up, and the halter will be securely adjusted. The moment the colt finds the halter pull upon him, he will be likely to try to pull away. The larger your room, or enclosure, the more he will be encouraged to pull away. On this account, if the colt is bad, be careful to give yourself the advantage of a small room or carriage-house, which will be free from pegs or nails in the wall that would be likely to cause injury. By all means avoid a barn with stalls, for the colt will try to run into the stalls for protection. After the halter is on, you had better next aim to overcome the sharp edge of his wildness and confidence by subjecting him to the second method of subjection. If he is young, two or three years old, with long ears, round, small eyes, and a sulky, impulsive action, you must PROCEED CAREFULLY, for he will fight you savagely at every point. Don't try to lead him, or jerk upon him, as he may lunge and throw himself, but, as gently as you can, catch the hair of the tail with the right hand, holding the halter well up near the head with the left, and, as quickly as you can, turn him around two, three, or four times; this will make him dizzy, and enable you to carry out easily and safely the second method of subjection. Without this little advantage of partially confusing the mind in this manner, and going directly to forcing by the second course of subjection, he might lunge and throw himself over backwards and break his neck. This you must be careful to guard against.

Instantly tie the halter into the tail, a little long, and at starting touch the nose lightly with the whip. After once starting, the rest will be easy. To be thorough, reverse; but while helpless, and his mind is unable to act, accustom him to be touched, as you please, around the hind parts, — in fact, every part of his body, — until perfectly regardless of being handled or touched with a pole. Be very thorough. The colt should be made COMPLETELY DOCILE, to be ridden and handled as you desire. Rub and touch the hind parts and legs until there is no scringing or regard for being touched. Now, untie the halter, and see that he submits to all this while free. As I before intimated, I would recommend that making one part of the body gentle to be touched and handled, does not make the rest of the body gentle. All parts of the body must be treated in the same careful, thorough manner, and on both sides alike. This is the law of the horse's reasoning, which is shown in a great variety of ways; consequently one-half or two-thirds of the body may be gentle, while the rest of it may be unbroken, or the horse will resent having it handled or touched.

MUST OVERCOME HIS FEAR.

We see this shown in a horse that has been, perhaps, worked for years, and is supposed to be well broken; but let the whiffletree or cross-piece touch his quarters, it is likely to be the signal to jump and kick, and show as much fear and repugnance of being touched as if never trained. If, in the first place, this part of the body had been carefully and thoroughly accustomed to have the pressure of the cross-piece or the shafts brought against it, there would be no fear or resistance to any thing striking or coming against the hind parts.

It is on this account that the first experience of the colt should be made right, in proving to him conclusively, that he must submit to be handled with the greatest freedom. It is because I have learned to create this thorough foundation for preventing being frightened and made nervous by any possible cause of fear, that I am able so easily and quickly to drive and control any colt in a few minutes, when attached to shafts, without breeching. With this

point made, you are ready to take the next step of making him lead to the halter. This is a point in which the colt will be likely to give you much opposition, resisting every step with great stubbornness; so you must prepare yourself for some hard work. The main point is to KEEP COOL; for however stubborn and reckless the animal may act, when he gets over the excitement, and is cool, he will always work in nicely, and, once yielding, gives no opposition afterwards. So the point is simply perseverance, and not pushing too fast; for the warmer the colt gets, the more stubborn and reckless he will act.

First put on the war-bridle, which has been shown to you, and is described in another chapter under that head. As it is much easier to make a horse follow sideways than straight ahead, for greater ease of working, I would advise making this point first. To do this, use this form: large kind of loop around the neck; the cord extending through the mouth, back over the part around the neck should be used. It gives great power sideways, but should not be used on the colt any other way. If you pull back too much, and the colt is sensitive, there is danger of being thrown over back. If you pull ahead, it acts directly upon the mouth as a powerful check, and defeats your object. It has been used with great pretension by many as a means of bitting colts. The purchase from the back of the neck to the jaw is too short: it is liable to injure the mouth, and must be used with great care, if at all, for this purpose. It is, on the whole, bad treatment, and very objectionable in the hands of a rough, thoughtless man. Stand opposite the shoulder, about five or six feet away, and give a sharp, quick jerk toward you, and instantly slacken up, and repeat, at slow intervals, always slacking instantly after each pull. A quick, nervous, well-bred colt would yield very quickly to this, coming to you and following freely after a few pulls; but those of small, round eyes, heavy eye-lids, long, heavy ears, are liable to be fearfully stubborn. When warmed up, they will always, if possible, pull into a corner, run into a stall, and try to do almost any thing but yield the point. When thoroughly warmed up, they will either stand with ears lopped, legs spread, and head down, or lunge recklessly away. If the

colt becomes very warm, the better way is to stop, and let him get cool. While THOROUGHLY WARM, it is next to impossible to make him do any thing; yet such will always work in easily when cool, and especially after a sharp lesson. Your best course is, then, if the colt warms up, and becomes thoroughly stubborn, to stop, and let him become entirely cool, when you are to go on as before in the same manner. To your surprise he may now give up in a few minutes, and is so perfectly broke that he will follow you anywhere, without being touched. As soon as he gets the idea of coming to you, encourage him by kindness.

KINDNESS.

Stop at once, caress the horse, give a little oats, apple, or any thing else of which he is fond, until there is perfect obedience.

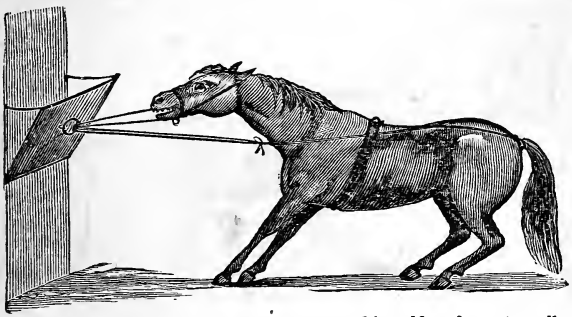
There is great sleight in using the war-bridle, and it is mainly in the quickness of the pull; but in that little pull all the power in your body must be concentrated, like the crack of a whip. Never hang on after the pull; let the cord go instantly back slack; neither should the cord be allowed by chance to keep drawn tight upon the jaw, as it destroys the sensibility of the mouth, and, in a great measure, makes your work harder. If you are not careful, you will blister and skin your hands. You do not feel or know any thing about this, while excited and warm, as you are liable to become. To guard against the trouble, have gloves on your hands. Sometimes a colt will come sideways well enough, but will not come ahead. In this case change the form of war-bridle; put the small loop around the jaw; pass the cord over the head where the halter rests, and down through the loop the end forms around the jaw. Stand about six or eight feet ahead of the horse, a little sideways, and, as before, give a quick, sharp pull, repeating slowly. However stubborn the colt, he will in a few minutes come promptly, and, once yielding, will follow anywhere. The power and value of the war-bridle, when properly used, are beyond estimate for breaking a horse to lead. It is invaluable, because it will break any colt or horse, no matter how bad, to lead as desired, freely; and it does it so quickly and easily that it is, beyond all com-

parison, the best means known for the purpose. It does not injure the horse; its success in all cases is complete. There is, however, a great point in the skill of using it right.

I will here explain to you how you can make almost any colt lead easily by the use of a common rope halter. It of course does not give the power of the war-bridle, and is not to be compared with it; but, being available and simple, I will include it. The halter should fit well on the head; the nose-piece should not be too tight or too low. If too tight, you will greatly lessen its power upon the head; if too low, it presses upon the nostrils, and prevents breathing. Neither should the rope be more than three-fourths of an inch in size. If you have a rope-halter, see that the slipping-noose part is made fast by a single knot, leaving the nose part large enough, so that it will not press tightly upon the jaw. If you neglect this little point, when you pull upon the halter, this nose-piece around and back of the jaw draws tight and hurts: it tends directly to setting the colt back; and once pressing tightly upon his head, he is likely to pull most recklessly to get away. This is the reason a colt hitched by a rope-halter is liable, without any apparent cause, to get in the habit of pulling on the halter. This you will avoid by tying into a knot, as above described. Now stand opposite the shoulder, and give a sharp, quick pull, and let loose instantly. You will of course pull the head towards you; and, if the body is brought around towards you, you have made quite a point. If the colt attempts to run back or runs ahead, give him slack rope; simply repeat, until he will come around towards you without pulling. Now get on the opposite side, and repeat the same tactics until he will come that way freely; and at each movement of coming to you, reward him with a little apple, or any thing which he likes. Now gradually pull as before, but a little more and more on a line with the body, until he will follow readily without being pulled upon. If you stand in front of a green colt, and pull slowly and heavily upon him, he will gradually, but firmly, pull against you, and will be likely to rear up, and throw himself over backwards, or throw himself down. Tie him by the head, and he will

pull most desperately. This slow pulling is what is to be avoided; and the habit is established of yielding to the slightest pressure of the halter. It is also a point in showing that a colt should not, as is common, be hitched at first in this way. There is a natural tendency in the colt to pull when tied by the head, which this making to yield by the course above described almost wholly overcomes, but is not to be relied upon.

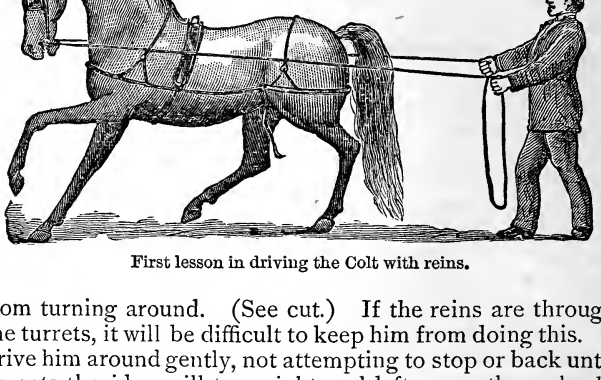
Hitch the colt for a few times as follows, and he



Hitching the Colt so that he cannot injure himself, or learn to pull.

will never learn the habit. Provide yourself with a small rope, not over one-half an inch in diameter, one that cannot be broken, — a hemp one is the best, — twenty-eight feet long; double this, and put the end forming a loop under the tail, bring forward over the back, twisting two or three times, and tie both in a double knot, below the neck in front of the shoulders; now pass the cords forward through the ring in the manger, and back to the ring in the halter back of the jaw. If you wish to be very particular, wind the part of the rope under the tail with a piece of rag to prevent making the tail sore. The moment the colt attempts to pull, he is disconcerted and disabled, and comes ahead, from the pull upon the tail, in surprise. There is pressure upon the head to which he becomes accustomed; and all inclination to pulling is prevented and overcome, and prevents all possibility of being injured. The younger the colt and the colder-blooded,

the more inclined to resist the restraint of the halter, consequently the more difficult to make yield to the halter, or to hold by the head. When once broken, however, they are honest and reliable afterwards. When the colt is gentle to handle, and leads nicely, your work is more than half done. The course I usually pursue is this: If the colt will bear it, I put on the harness at once, after making him gentle and teaching him to lead, passing the reins through the shaft-bearers, which enables keeping him



First lesson in driving the Colt with reins.

from turning around. (See cut.) If the reins are through the turrets, it will be difficult to keep him from doing this. I drive him around gently, not attempting to stop or back until he gets the idea, will turn right and left promptly, and submit to the control of the bit, which he soon learns. This should be done in a yard or field, where you have room, and nothing to annoy. If, however, the colt is warm, and does not work in easily and promptly, do not attempt to drive him in harness; treat him kindly as you can, and put him in good quarters; repeat this lesson the next day, and he will usually work well in a short time. Any way, repeat, and test him hard on this point of being touched and handled around the hind parts, until you know he will with certainty bear any thing in the way of pole or shaft against his quarters, &c., without resistance or fear. A good many are so short-sighted and thoughtless, as to think a colt should behave and act as gentle as an old

horse after being once handled, especially if he works in well. If I subject a colt, no matter how bad a one, to treatment, when I bring him under complete control, they think that is all that it is necessary to do; that he must stay so, or the treatment is good for nothing.

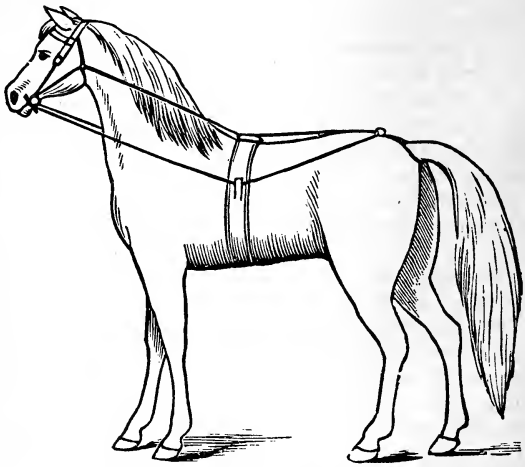
All horses are not alike in disposition or intelligence, as I have shown in the first part; and the point is to insure absolute certainty of success. If one bucket of water will not put a fire out, the point is to throw on more, and put on enough until sure every smouldering spark is extinguished. This is precisely the rule in making the colt gentle. You are acting upon a certain side of the nervous system: if one lesson does not make the impression strong enough to accomplish your purpose, repeat until you do. If the colt is warming up too much, or you find that he is at all doubtful, upon trial next day, repeat the lesson until you know the colt is gentle, and shows no fear under any excitement. You are now ready for the next step, of getting sufficient control upon the mouth to guide and restrain the horse as you desire, in harness. For quick, sharp work in doing this, the breaking-bit is indispensable; but the great power of this bit is a reason for using it with caution in the control of a green colt. If you once get the mouth too tender and free to the bit, it is difficult, in many cases, to get the mouth hard, so that there is a strong pressure of the jaw against it in driving. Then a horse with a tender mouth is liable to rein back too freely when pulled upon: this trouble you may cause by using the breaking-bit too freely at the start. You must aim to make a good, firm mouth, yet one that is like a steel spring to your control of the reins. If you have a valuable colt and wish to work slowly and carefully, I would advise the following course:

BITTING.

The mouth, in the first place, should be made accustomed to the bit; then, by gradually shortening the check-rein, the mouth is made to submit to restraint. To do this, put on a common bridle, with a smooth snaffle-bit, without reins, and allow him to go as he pleases, in a yard or field, for half an hour or more, which may be repeated once or

twice, to make the mouth accustomed to and hardened to the bit. Next put on a surcingle, with check and side reins, buckling the reins at first so long as to bring but little restraint upon the mouth. After being on thirty or forty minutes, take it off. At each repetition, buckle the reins a little shorter, until the head is brought up and back freely to the check.

It seems needless to introduce details of a bitting harness. Any simple construction of the ordinary kind will answer very well, and the style is so generally understood



A simple, safe way of bitting the Colt.

that a description here is unnecessary; the object being to bring such restraint upon the bit that the head will be held up and back most naturally and easily, without giving it freedom, except in the direction of the reins. Care should be taken to have the throat-latch so loose, that there will be no pressure of it upon the throat when checked up. The gag-runners should be well up near the ears. Care must be taken not to bring too much restraint upon the bit by buckling the reins so short, at first, as to endanger causing the colt to throw himself over back-

wards and break his neck. It is bad policy to keep a colt checked up too long at a time, as it becomes tiresome, which would cause a resting of the head upon the bit, and thus form the disagreeable habit of *lugging*. If, however, the colt should fight the restraint of the bit or check, it should be left on till the fit exhausts itself, and he shows a disposition to submit to its restraint.

Short lessons at first, and gradually keeping on longer as the mouth becomes hardened by the bit and the colt will bear it without fatigue, is the best course.

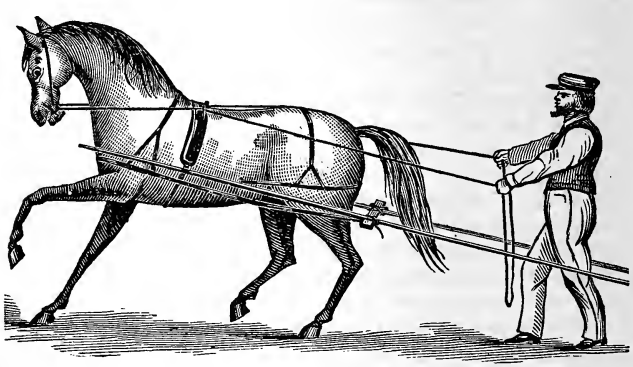
You are now ready for the next step of teaching, to rein right and left, stop, back, &c.

Put on the harness-reins through shaft-lugs, and see how the colt works: if too stiff or stubborn to the bit, put in the breaking-bit. Give him a lesson with it. One lesson of a few minutes is usually enough. Be sure you do not do too much, so as not to get the mouth too tender. This is a point you must be careful to avoid. If he resists the pull of the reins either way, drill on that point until he turns easily and promptly as desired. Next, teach him to stand. This is not usually difficult to do, yet in some cases requires much care and patience to do well. While driving on a moderate walk, speak "whoa," in a natural tone of voice, and immediately after give a sharp little jerk with the reins. This will cause the horse to stop, but usually he will start on again. Repeat the command, and pull, and continue repeating, until the colt learns to stand. Do not let him go back. Appreciate obedience by a caress and kind treatment. Give a little something of which he is fond. Remember that now you are creating habits that will, if well established, last for life, and the safest course is to go slow. You cannot certainly do harm by this course; for no matter how awkward, if patient and careful, it will compensate for much want of skill. It will also give the colt something of a chance to learn what to do.

Your next object should be to drive the colt in shafts. A four-wheeled wagon is not the thing to drive in at first, because so bad to turn with; and before this is attempted you must know the colt will rein freely and reliably. A little care will guard you from possible trouble, and the

true point of success is to make no failures, to make every step sure, and when you get your horse driving, he will be as safe and gentle as any old trained horse. To make this point safely and easily, I devised poles for the purpose (cut of which see). It answers the purpose perfectly, and costs but little.

Get two poles about twelve to fourteen feet in length, common saplings, about two inches in diameter. Lay them down in the form of shafts, the small ends forward, six feet six to eight inches from the forward ends; lay on another piece of pole, same size, and long enough to extend beyond the others a few inches. Tie on with cords



Driving the Colt in poles.

or straps. Hitch the colt into these poles, attaching the tugs to the cross-piece by tying with cord, or any other way you please, and drive around until there is perfect submission to them, guiding promptly to the reins, and submitting to the poles striking the flanks or heels without exciting the least fear. Just as soon as he reins well, you are all right.

THE HARNESS SHOULD BE CAREFULLY FITTED.

As to after-work I can say but little. The first point to which I would call your special attention is the fitting of the harness. It should in every respect fit well, and should not be drawn too tight anywhere.

See that the bridle fits well, that the cheek-pieces are long enough to let the bit rest naturally and easily in the mouth; that the throat-latch is not so tight that when the head is pulled up it does not press against the throat. Let every part fit easily and naturally. Buckling too tight anywhere not only annoys, but obstructs the circulation. Drive on a walk, or moderate trot, at first. Be careful about backing. If you get too much back, there is danger of the colt learning, when confused, to run back or come back too freely. This must not on any condition be encouraged or permitted.

You should be careful about driving so much as to cause fatigue; neither should the colt be required to draw heavy loads until he is hardened, and has learned to use his strength. If he shows action, and you wish to teach him to trot, go slow.

After learning to walk well, let him trot a little, gradually letting him out faster and a little farther, as smooth pieces of road give opportunity; restrict these little outbursts of speed at first to the limits of a few rods. Let him dash out a short distance, then gradually slacken to a walk, speaking kindly and encouragingly. After a while, let him out again, pushing, perhaps, a little faster and farther, being careful not to crowd to breaking. It must not be expected because your colt is perhaps a good mover, that he will be a *fast trotter*. But if he does show a loose open gait, do not by any means spoil him by attempting too much at first. There is usually too much anxiety to try a colt's speed and bottom; and he is often pushed, overdone, and spoiled perhaps, before his powers are half developed.

A colt must not be crowded too much at the start. He cannot be expected to drive like an old horse, without experience and practice. He must grow into the position, as it were; and a reasonable patience and effort is necessary to insure this. The great trouble with most people, in training colts, is, they attempt too much; and doing too much now is liable to spoil all.

DRIVING DOUBLE.

It is generally the custom to drive the colt at first in double harness by the side of a gentle horse accustomed to harness. The colt should be put on the off side. The whip should be held over the old horse, to keep him up to the movements of the colt in starting, but the gait should be kept moderate.

After driving well on the off side, the colt should be reversed to the near side, there being less danger of becoming frightened from getting into or out of the wagon, or of seeing things while being passed to or from the wagon, by being more from view on the off side; therefore, to lessen the probabilities of being frightened, it is preferable at first.

Let the driving be moderate and the load light, and by all means, if the colt is of a sensitive or nervous temperament, the greatest mildness must be observed. Loud "yelling" or cracking of the whip should not be permitted.

BACKING.

After learning to drive well, teach the idea of backing by pulling on the reins steadily, and saying "back." If there is resistance, give a quick, sharp, raking pull, which will move the colt by the pain and force of the bit backward, repeating until there is prompt obedience. If there is much resistance, put on breaking-bit, which will soon secure obedience; but under any circumstances do not make the colt back too freely, especially if the mouth is sensitive. If there is much resistance to backing, and the colt warms up, the best way is to stop until cool. Repeat lesson, and the colt will soon back freely. Be careful not to force to back too freely. A little too much disposition to back is sometimes hard to overcome. Aim to get just enough and stop.

RIDING.

If the colt is not of a very bad character, there will be no resistance to being ridden, after the first lesson of subjection. If there is, attach a short strap or a piece of rope to the off forefoot, throwing the other end over the back. Take a short hold of this strap with the right

hand, while the left grasps the near rein of the bridle firmly. As the head is pulled around, the horse is made to step sidewise, and the instant the foot is relaxed it is held up by the restraint of the right hand on the strap, which is instantly drawn upon. The colt is now on three legs, and unable to resist. Jump lightly on the back, press the feet against the belly and flanks. As there is submission, release the foot, taking a firm hold of the reins, which should be held short. Move the colt forward, and if there is an indication of resistance, pull upon the strap and reins, which will disable and disconcert the horse from further opposition to being rode. If the colt will not move forward, request an assistant to lead him by the head for a short time. So long as there is any indication of resistance, keep on the strap. One thorough lesson is usually sufficient, though some colts may require a repetition of the lesson.

Disabling the Colt with a foot-strap to be mounted.

When it is desired to mount, let the left hand rest lightly on the mane, a little forward of the withers, holding the reins between the thumb and fingers. Throw the right hand lightly on the back, the body close to the horse. Now spring lightly upward and forward. The instant of doing so, let the right hand glide forward until the elbow strikes the backbone, when the weight of the body is to be instantly balanced upon the right arm, which will give sufficient strength to make the spring continuous, and the body is easily brought into a sitting posture. This is a slight undertaking, and a little practice will give the ability to mount the highest horses with apparently wonderful ease. To mount on a saddle, stand by the side, a little back of the stirrup, the face towards the horse's head. Take a short hold of the reins between the fingers, grasping into the mane at the same time, put the left foot into the stirrup, throw the right hand over the saddle and press it against the off side, throwing the weight of the body on

the left foot, and you can lift yourself into the saddle easily.

HANDLING THE FEET.

All this should be done when the colt is first subjected to treatment. If the feet are then taken up and handled, there will be no after trouble. If of an ordinary good disposition, this can be done without resorting to special means. Stand well up to the shoulder, put the left hand on the shoulder, pressing forward gently, which will relax the muscles controlling the leg, with the right hand instantly grasp the foot below the fetlock and lift it up, remove the left hand, and bring it under the foot to aid the right hand. To handle the hind feet, let the right hand glide gently from the shoulders back to the hip. At the instant it passes the point of the hip, bring the left hand forward upon the hip. While doing this, the right hand is being glided down the leg gently, until it strikes the fetlock, when the left hand should be pressed firmly against the body at the point stated, which will relax the limb, and the foot can be easily brought up by the right; the left is lowered, and passed down the limb on the back part of the fetlock. Or the foot can be raised and lowered a few times with the right hand, while the left balances the body by pressing against the hip until there is perfect submission.

If there is resistance, take up the forefoot, request an assistant to hold it up for you, while he at the same time holds the colt by the halter or bridle. Tie the end of a rope or strap around the hind foot, above the fetlock, at the instant of doing which let the hand glide along to the opposite part, until six or eight feet from the foot. At the same time request the forward foot to be let loose, the assistant holding by the halter. Now pull upon the strap, which will bring the foot forward, and, at the instant of attempting to kick, let go, and so repeat until the foot is submitted to the restraint of strap. Then slip behind and pull the foot back, and, as before, yielding at each effort to kick, let go, until the foot is submitted freely. Now take the foot from the control of the strap to the hand, and handle gently.

If there is very determined resistance, tie the end of

your long strap around the neck, near the shoulders, pass the other end back between the forelegs, around the hind foot, but under the strap around the neck, and draw up on it, at the same time holding him by the bridle or halter. The colt may be frightened, and jump to get clear of the restraint. Should he act very much frightened, slack up on the strap until the foot is almost back to its natural position. Then, as he will bear, again pull a little shorter, at the same time pulling him round in a circle by the head, until he ceases struggling to get the foot loose. You may now pull the foot farther foward, and hold it as before, until he will stand quietly. Now step back a little, and pass the hand down the hind leg. Slap the hand upon the leg a little, until there is no resistance; then take it in the hands. If there is no resistance, undo the end of the strap and allow the foot a little more freedom; at the same time, while holding the foot by the strap, pass the hand from the hip down the leg, quietly, rubbing and caressing until able to take it in the hands.

Handle the opposite leg in the same manner, until there is perfect submission. Should the colt resist having the feet handled with much determination, or prove very vicious, use the double hitch, or go back to the regular subjective treatment. Those of a wildish, mustang disposition are the most obstinate: there is once in a while one of this class that will call for pretty thorough and patient treatment to make gentle. They are not only so plucky, but so strong and enduring, that they are disposed to resist control of the feet at all hazards. It is of great importance that colts are treated with great kindness: giving apples, a little oats, &c., after submitting the feet, or being otherwise handled, as the real cause of trouble is fear; and a little flattery in this way has a powerful effect in winning the confidence, and thus of winning obedience. All this is now so easily done when necessary by the ordinary subjective course, that it seems needless to dwell on minor conditions and details: you must bear in mind that bad cases call for a little work and patience, and that you must be not only thorough, but prudent, to be successful.

PREVENTING AND OVERCOMING FEAR.

If you start right, there is but little trouble in making a colt or horse entirely indifferent to any of the ordinary causes of fear. The main point is not to force the object or sound too quickly or suddenly upon the attention when you touch the quarters, and let the shafts upon the hind parts, as explained at the commencement, on page 37. He was first so disabled, and the reason so thrown out of balance, that all this could be done with perfect success in a few minutes. If, however, the colt is of a quick, nervous character, but little force is necessary, simply bringing the objects to notice as slowly as you can. Whatever is very unusual attracts the attention quickest. If you happened to drive by a house on a road not much travelled, every one in the house would crowd to the window to see you. In a city a crowd may pass without notice, because of common and familiar occurrence. Horses used around a depot, in the midst of moving trains, for a short time, will soon cease to notice the noise and excitement of the engines and cars; while a horse not accustomed to them, when driven unexpectedly near them, would be excited to great fear of them. I was present once when four horses, entirely unaccustomed to the noise of a band, were attached to a band-wagon: the first note and tap of the drum excited them almost beyond control. I directed the band to get ten rods behind and commence playing very lightly, gradually coming nearer and playing stronger until they came up to the wagon. I now had them get in, and directed them to commence as lightly as they could, and gradually increase. In ten minutes the band could play with entire freedom, without the horses caring any thing for the noise and excitement. If the band had struck into playing quickly and unexpectedly, as usual, at

first, the horses would have been frightened beyond all control, and spoiled. The principle is the same with any thing else. The point is not to throw the mind off its balance by exciting it so suddenly and strongly as to be unable to obtain an understanding of the nature and character of the object or sound. Let so much only be brought to notice as there is ability to understand, gradually repeating as may be necessary. It is fear that causes the colt to kick, and resist being touched ; consequently we have a great many colts that are afraid of shafts, and will kick if touched around the quarters or belly. I have shown how easy it is to make such gentle, and so safe that they will not resist the cross-piece and whiffletrees coming against the quarters. Now, all this I do, with some rare exceptions, by putting the horse in a condition to overcome this fear, which I can easily do, and the cause of the whole trouble is overcome as if by magic. Doing this as it should be, as I teach, removes all the danger and trouble from this cause, and enables doing in a few minutes what is the cause of so much danger and trouble, including the great loss of time, by the common system of breaking.

The thing to be accomplished is to overcome all fear of being touched, or of any noise from behind, until we are able to make and hold this point by the ordinary control of the reins and bit. We see it is almost sheer madness to attempt making bad colts safe in harness ; for it is seen if the quarters of such are suddenly and unexpectedly touched by the shafts, or even the touching of a strap, it is likely to cause so much fear and sense of danger as to excite the animal to run and kick beyond all control. The fears once excited in this way, we have the habit established of the wagon and harness being thereafter a cause of the greatest terror. The principle is the same with a robe, umbrella, blanket, or any thing else. The trouble is owing to being forced to notice so quickly and unexpectedly, that the innocent character of the object could not be understood. It is not a little wonderful, too, how intense an aversion of an object may be created by an almost instantaneous impression. When in Cleveland, O., a horse owned by Dr. Keegan was

brought in for treatment, reported to be afraid of a blanket: this horse did not have a blanket upon him for seven years, and he would act furiously vicious the moment shown one. All this was caused by a gust of wind raising a blanket from his back, that had been thrown upon him while standing in the street, and falling under his belly, and frightening him greatly. This horse would squeal, strike, and kick, and his eyes blazed like balls of of fire, when shown a blanket. It was only by great care and effort that I was able to make him submit to be touched with one, and submit to be covered with it. A horse brought me in Greencastle, Penn., years ago, was so much afraid of a robe, that he would get away, or kill any one, if he could, who would bring a robe near him. With a robe behind me, and only showing one corner of it, though distant from me fifty feet, the horse was completely frantic, and I believe would have died from the shock, if treated too precipitately. By careful, energetic treatment, I was able in less than an hour to make my success complete, the horse becoming entirely indifferent to it. It was regarded a great feat. This was one of my little episodes of trial, the horse acting fearfully wild and bad before the class, and at first I made no apparent progress in making him submit to the robe being brought near him. The owner and every member of the class said, "There was no use, that the horse could not be broken." Their perfidy of purpose, too, was so manifest, to break me down if they could, that I was roused to vindicate myself at all hazards. To the owner, on the instant, I pledged in cash the value of the horse as assurance that he would not be injured. To the class I said, If I do not succeed, and perfectly, I will pay every man back the money he paid me. I demand silence and time as my right, without favor. I went to work as if for life, and succeeded. But it was a close call. Nothing short of sharp, heroic work would do; and by careful work I made the reformation perfect. The owner led his horse home with a robe over his back and neck; the horse as indifferent to it as if never afraid of it. They all declared it the most wonderful performance ever seen of the kind. Every man, if necessary, would have fought for me; and every man

followed me to the next town the day following. That was many years ago, and was one of the many little episodes of trial to which I have been subjected in my long experience, but which were necessary to give me whatever of success I am now able to exhibit. The Petroleum horse, Wild Pete, referred to on page 14, was moved in his viciousness almost wholly by fear: he was so wild and afraid of any thing touching him, that with one leg tied up, and with the control of the war-bridle, a means of the greatest possible power upon the head, when I touched the hind quarters lightly with the lash of a long whip he was so frightened that he sprang into the air, and got away from me, running fully a half a mile, at every jump kicking in the most fearful manner; yet one lesson of an hour completely broke up all this fear, and left the horse as gentle, safe, and manageable for any one to drive and use as could be desired.

The Press horse, broken by me in Buffalo, N.Y., referred to on p. 12, was moved wholly by fear. Any thing like the shafts of a wagon was an object of terror to him. A year before this horse was treated by me, four of the best horsemen of Gowanda, N.Y., who had taken lessons in that place a short time before, of a travelling horse-tamer, so called, determined to apply the treatment to the Press horse. They clubbed together to get the necessary rigging used by this man, which was, by the way, quite complicated and expensive, but indispensable. They led the horse a mile out of town, worked hard half a day upon him, all ending in the horse getting away, and going flying into town with ropes and rigging hanging about him. It was a disastrous failure; and I need not add that horse-taming was at a discount, and a term of derision in that town. When, the next morning, after being subjected to treatment by me, I drove this horse in the street (three of these men — Mr. Vosburg, a liveryman and a really good horseman, being one of them — were stopping at Brown's Hotel, it being race-week in Buffalo; and all the horsemen in that section of country were in the city), they were more than astonished. They desired me to unhitch the horse, rattle the shafts, all of which I did, even driving him without breeching, the horse acting as gentle and

quiet as any old thoroughly-trained horse could. They said that beat them ; that they could not see how on earth I could, in so short a time, make so complete a change in him ; that he was the most fearful horse they had ever seen ; and that they could not believe it possible that he could be made so gentle and safe. But there was the simple fact ; Press and all were there ; it was the same horse brought into the city the day before, and was treated by me in the presence of a class of over a hundred. Such feats as these are what startle a people ; and I need not add that this, with other feats of control, gave me great success in that section of the country at the time.

Nearly every kicking, runaway colt and horse is moved by fear ; and I refer at this length to the cases above mentioned, to show the practicability of breaking such horses, and making them safe when right principles govern the efforts. I would state here that an impression of fear may be made so intense as to destroy life, or shatter the nervous system to a degree that partially or wholly destroys the reason. This possibility you cannot overlook. When a man tells me his horse is afraid of an object, I tell him, if bad, I must see the horse, to learn how much, if any, the nervous system has been deranged. The expression of the eye, when a little excited, will enable determining this. I am now referring to what is possible, not what is to be expected in cases of average kicking runaway scrapes, or ordinary fear of a robe, umbrellas, and other objects of this nature. One or two sharp lessons ought to overcome these difficulties. All impressions, it is supposed, are made upon a series of concentric nerves in the brain, called ganglia, which retain or throw off impressions by reflex action. Success gives confidence ; failure and injury, an undue sensibility to fear. If the cars come upon you suddenly and frighten your horse, causing a runaway scrape, the sudden and close proximity of a train of cars afterwards would cause anxiety while driving even a gentle horse. But the horse reasons from the effect upon his nervous system and the side of his reason acted directly upon. He may be in a position of danger, but not knowing it is indifferent ; while that which seems dan-

gerous may throw him into a panic of fear, though not touched. Now, the point is, to make the horse able to see and understand that the object, whatever it is, is harmless ; but he must be fully convinced of this from all sides of his understanding. And here, certain conditions and principles of treatment must necessarily govern the efforts, or there will be possibility of failure.

DETAILS.

The first great difficulty here, if the case is bad, is to be able to control the horse as desired, so that you can reason the matter with him. I would remind here that the most dangerous cases are those that are usually gentle until the object or cause, whatever it is, is brought to notice, when terror makes the horse both strike and kick with the fury of desperation. Such horses must be made to yield perfectly to control. The second method of subjection seems to accomplish this end best. The action of the mind is almost suspended ; and the horse is at once rendered helpless, when you can safely reach him with the object. You should in all cases treat the horse out of doors, and, as nearly as you can, in the very position of resistance. No matter how apparently gentle a horse may become by treatment in a barn or building, when he is taken out of doors he seems to forget it all, making serious disappointment and possible trouble. He must be treated outside of the barn or building where he sees the object in use, and where you can be free from all causes of excitement. Again, you must not on any account overlook the value of kindness and encouragement in the treatment for fear. If, for example, afraid of a robe, when you are able to bring it to the head and over the body, give a little apple, oats, or any thing else of which fond, to attract the mind, and associate with it sincerity and kindness.

A ROBE.

While held under careful restraint, let the robe be brought up gently to the horse's nose. After smelling and feeling of it in his own way until satisfied, rub it gently against the head, neck and body, the way the hair lies, as

he will bear. Then stand off a little, and throw it across the back, over the neck and head, gradually stepping farther, until you can throw the robe upon him as you please.

Should you do any thing in the barn, you must repeat the same out of doors. You must also make him see and feel the robe behind, before, and on each side. Should he be at all dangerous, subject him to the second or first course of subjection; and once under control, go on as before described in familiarizing the understanding to it. Very often, all you need to do is to take the horse by the halter, work slowly and gently, and you can soon throw it upon him as you please, safely. Repeat the lesson, always rewarding and encouraging with little presents. Sometimes the horse seems to be afraid of the smell, and will not become reconciled to it. In that case take a bit of the robe, tie it around the bit, and put it in the mouth for awhile, and this feeling will soon disappear.

AN UMBRELLA OR PARASOL.

While holding the horse by the halter or bridle, as may be necessary, bring the umbrella to his nose, gently rub it against the head, neck and body, as he will bear, spreading it a little, repeating the process of rubbing, and so continue, gaining little by little, until you can raise the umbrella over the head, and pass it around the body as you please, without exciting fear or resistance.

SOUND OF A GUN.

First, commence by snapping caps a short distance from the horse, gradually, as he will bear, approaching nearer, until you can snap caps while the gun is resting upon the back, over the head, etc. Then put in a little powder, and at each repetition increase the charge, until you can fire off a heavy load without exciting fear.

RAILROAD CARS.

Let the horse see them at rest, then gradually lead or drive him up to them, even to smelling them with his nose. Now, as you have an opportunity, drive around while they are moving, working up nearer as you can, and

at the same time turning him around so that he can see and hear them from different directions. This lesson should be often repeated, being careful not to crowd beyond what will be borne easily, until they cease to attract his serious attention.

A horse once really frightened, must be taken out of doors, and brought under thorough subjection by the first and second courses of subjection. Get good control of the mouth, make every point sure, and now drive around as before described.

TOP WAGON.

If necessary, use second and third courses of subjection. Next, see that you have perfect control of the mouth with the bit; now with an umbrella, commence gradually at the nose, and work slowly, shutting and opening it, going on each side alike, at the same time, giving apples or any thing of which he is fond. From behind, repeat, first passing the umbrella gradually back over the hips from the shoulders, and finally getting behind, when you are to take the reins, starting and stopping, raising slowly, lowering, closing and opening the umbrella. Make this the object of quite a thorough, careful lesson. Now hitch to a wagon, with top down, or partially so. Be sure you have power enough to hold the horse with the bit while standing. Commence again in the same gradual manner, and work back. Do not by any means attempt to drive right off, and raise the umbrella or top suddenly on the road: if you do, you will undo your work. Be very cautious about this: a little care and time now, is what will do your work. If the horse is nervous, get out and to his head, over and over, working back as before. Remember the fear is really in connection with the wagon, and this is the difficulty to be overcome. The umbrella is the top to his imagination; reconcile him to this carefully. You can also raise and lower the top, and let him smell and see it on every side, before being put in the shafts. Remember it is an entirely new thing to him; when he is backed into the shafts, and this is the end you are working for, to reach his mind to be convinced upon; move a little, while the umbrella is over your head: stop and

start, over and over, until he does not mind it; now quietly put down the umbrella and raise the top two-thirds, and lower it, if you can, gently. Move slowly as you can, or even come down to standing again; he will be much less afraid while standing, than when in motion; so work up to speed slowly, until the top can be kept up. You should for a few times, before being hitched, let him see and smell of the top, and hitch in very gently.

I break all horses without blinders, forcing obedience as I desire. I make success sure. But when a strong, wilful or nervous horse is once greatly frightened at a top, it is sometimes a serious matter. I take into consideration the fact that many who attend my lectures are timid, and will not try to do much with a bad horse of this nature; so I have thought it advisable to give this slow patient course of treatment. If I have a bad horse of this kind, I take him out in the orchard or field, and subject him to first and second courses of subjection rapidly. I put on harness and under the bridle the double draw-hitch, and in ten or fifteen minutes take the starch out of him; then I drive around, depending upon the bit, and at once put him into shafts, and force him up until perfectly obedient: this makes it simple. If you are timid and careful, take your time, and work sure. A few hours' time is nothing, while the safety of a good horse is a great object. I would say here, if you do not make the horse positively safe, it is better and cheaper for you to shoot him, than take the chances of exposing yourself to accidents by driving him. His place is before the plough or other farm-work that does not endanger life.

USING BLINDERS.

A lazy horse will drive better with blinders than without. If the whip is raised he will spring ahead violently, but when he sees it put down, will drop back again. Blinders should be used on such. A horse with a large, coarse-looking head will look better with blinders, as they conceal the effects of such a head. A spirited, intelligent horse will be more courageous and drives steadier without blinders, when he can see things around him plainly. Blinders are often badly fitted and liable to do harm to the eyes.

If used, they should not come too near the eyes. If the horse will drive better by concealing the wagon, let them be wide enough, or far enough above the eyes, to prevent seeing over them.

OBJECTS EXCITING FEAR WHILE RIDING OR DRIVING.

Should the horse show fear of a stone or stump, or any thing of the kind, he will naturally stop, and stare at the object in an excited manner. Should the cause of fear be great and sudden, he may attempt to turn round and run away. This is to be guarded against, by sitting well forward on the seat, and taking a short hold of the reins, at the same time speaking calmly and encouragingly to the horse.

Speak encouragingly to the horse, but keep a close watch upon his actions. In a short time his alarm will be lessened. Then drive nearer, as he will bear, exercising the same patience and care. At each step nearer, the horse will show *renewed* fear. Keep pushing, a little at a time, as the horse will bear, until you can drive up to the object, or by it, and you not only leave no bad impression upon the mind, but gradually overcome the disposition to become frightened.

Sometimes a horse will dislike a wheelbarrow, baby-wagon, turkeys, &c.; but the treatment is the same. When the excitement is not so great as to endanger successful resistance, and the horse is disposed to "play off, or soldier," it may be advisable to apply the whip a little sharply, but this is to be avoided when it is seen the resistance is wholly caused by fear, and is not from laziness.

Some horses, while driven to carriages, will not bear the noise and excitement of other horses being driven up behind. This is principally on account of the horse's inability to see and understand the cause of the excitement, or it may be owing to the fault of the driver. Some one drives up rapidly behind, perhaps wishes to "go by," and then the colt is hallooed at and whipped up to prevent such a result. This may be repeated a few times; and the consequence is, if a spirited horse, the habit is learned of rushing ahead to avoid the punishment expected

under such circumstances; and very often, too, a horse is forced into this habit by being run into from behind.

MUST SEE THE OBJECT FROM DIFFERENT POSITIONS.

It is one of the peculiarities of the horse to understand and be reconciled to an object or cause of excitement only from the position and circumstances brought to his notice. This seems to be on account of the horse's reasoning powers being so limited as to be unable to retain the same understanding of the object beyond the position from which it was seen.

Every progressive change of position requires almost the same care and patience as that preceding. For example: if in teaching a horse to submit to an umbrella, if it were shown only from the near side, upon carrying it to the off side, it would inspire nearly as much fear as at first from the near side, or there may be an aversion to some particular object; or resistance may be inspired only under certain circumstances. You may succeed in getting a colt gentle to be rode from the near side, but an attempt to mount him from the off side would make him resist.

If a horse is afraid of an umbrella while in harness, he may be taught to care nothing about it out of harness; but if not taught to feel and understand its character in harness, he would be apt to be as much frightened at it in that position as if he knew nothing about it.

This seems to puzzle many well-meaning men, and is often the cause of much disappointment.

A horse that is afraid of an umbrella is brought forward to illustrate the management of such habits. In a short time the horse will bear the umbrella over and around him in any manner, without seeming to care any thing about it. The owner is pleased with the belief that his horse is broken; when in harness at some future time, he raises an umbrella behind the animal, and is astonished to find him almost as bad as ever, and he is disappointed. But when it is seen, in the first place, that it is often necessary to repeat the treatment, to expect the animal to be broken of the habit by a single indirect lesson, only tends to defeat success. For the inability to control the horse, and force upon him the object of aversion, may cause trouble, since the least

sense of freedom tends to increase fear of the object. Now, the efforts of the owner to control the horse directly, in a position of great disadvantage, may produce this result; and then, from an ignorance of the cause of failure, he believes it is impossible to overcome the habit.

The lesson must be repeated, as long as may be necessary to the end of perfect success, or the horse, once excited, is liable to drift back to being almost as bad as before.

KICKING IN HARNESS.

KICKING, in the first place, is the natural outgrowth of the old system of breaking horses, which depends wholly for success upon the wearing-in process. No effort at all is made to show the horse the nature and character of what is behind him. He is put in harness, and driven. If nothing occurs to excite his fears and resistance, he is likely to work in gently, but if a horse of spirit, if any thing touches his quarters, or any thing unusual occurs to excite him, the habit is excited. As kicking is the horse's principal means of defence when caused by fear, and the horse is a courageous, determined fellow, there is great persistence in the habit.

In the first place, if we touch a colt anywhere in the flanks or quarters, and the animal kicks, repeat the irritation and kicking will soon become a confirmed habit. If a mare is irritated by touching, or pricking her in the flanks, she will soon by repetition become so nervous and sensitive that she will squeal and make water when so touched. A good, quiet nature can by this kind of bad treatment and abuse be soon transformed into a squealing kicker, ever ready to kick or fight at the least indication of having any thing pointed toward her, or touched on the quarters. Pull a line under a colt's tail until he kicks; repeat the trick a few times, and you have a horse that will surely kick if the rein is caught under the tail. Here, then, we see in principle the cause of kicking in harness, and the true policy of preventing it. Now, the colt is pricked and frightened to kick in the harness by chance causes. The rein is caught under the tail by chance, which excites fear and kicking. The tug touches the quarters or the whiffletree, or cross-piece, from some cause, usually the breaking of the harness, or some other disar-

rangement, and a naturally gentle driving colt is taken unawares, the result of which is, he is frightened, and kicks. The heels coming in contact with the shafts or whiffletree increases this fear: the result of it all is, the horse is excitable and dangerous in that position, possibly so confirmed in kicking as to make him entirely unsafe afterwards in harness.

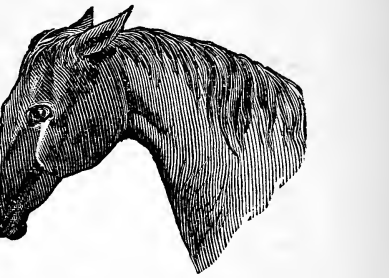
I wish to call your special attention to these facts and from them shape your plans of treatment. You notice, in the first place, that I base my success on the breaking and driving of colts so successfully to my getting at the very root of this trouble at the commencement; that my very first step with the colt is to overcome all this possible fear of being touched, or of any thing striking or coming against the quarters. If a colt has learned to kick in harness, I aim to overcome the fear and inclination of the horse to kick, by a counteracting impression upon the mind, and the whole difficulty becomes simple and easy to control. If a horse is confirmed in the habit, as before, I aim, as the true condition of my success, to remove the cause by counteracting the habit as strongly as I can, the whole point being, after the horse is once checked and the habit is under control, that every step is made secure, in preventing a repetition of it, until the horse will not, and, even under great aggravation, cannot be excited to kick. Now the intensity of the habit or not, and the temperament of the horse, must determine the treatment, and how much to do. It is certain any thing short of being thorough is liable to result in failure; hence, if you cannot by simple means check and overcome the habit, to be safe, then go back to indirect means, holding and forcing obedience. The colder or more sulky the nature, in some cases, the more your success must depend upon the reacting sensibility of the nervous system.

In breaking the colt, all that is necessary to do is to overcome the impression of fear, and all inclination to kick is at once removed. In colts of an ordinary good character we can do this easily by the control of the double draw-hitch and touching a pole against the quarters. If wild, strong and bad, this would not be sufficient. The second course of subjection will enable easy control,

with rare exceptions, in ten to fifteen minutes; while colts that do not yield to this must be subjected to passive treatment and the bit, which, if advisable, may be supplemented with the foot-strap, over draw-check, power-reins or kicking-straps. We will presume the horse is an ordinary six or eight year old colt; is a nervous, excitable kicker; is all right; but is afraid of the noise of the wagon, especially so if any thing touches him. First, take him out in the yard; and if you are a handy fellow, and the horse will bear it, try the first method of subjection. Do not expect you can succeed by it, but it is a strong help, and makes the next more impressive; throw and roll him a dozen times; be careful in doing this to be on a well-sodded piece of ground. An ordinary horse would now yield to the bit readily: however, do not be over-sanguine; your aim is to be sure. Immediately follow with the second course, and do not be at all timid. Make the lesson thorough. In the meantime, as for the colt described in a previous chapter, pole the quarters until there is no fear or resistance to being touched anywhere between or around the legs, or under the tail. Now put on the harness, and in nine cases out of ten you can carry out your control easily with the breaking-bit. Make the horse feel the full extent of your power upon the mouth, which will disconcert him greatly. Now pole him as before. A good way is to tie the hair of the tail into a knot, and run the pole through the hair above it, so that the pole will strike the quarters where the whiffletree or cross-piece does. Let the pole be pressed against the quarters, as if by chance, repeating until there is no fear of it. You should have an assistant to do this, while you hold the reins. Now make the horse move at the same time the pole is allowed to strike the quarters, until there is no fear of it and it is borne safely.

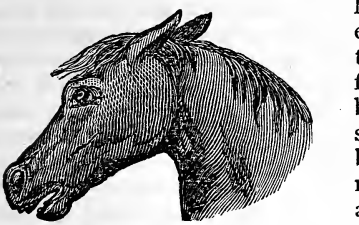
If you are a farmer, and you wish to work sure, if the horse is at all doubtful, do not chance driving before a wagon with poor, brittle shafts, or to a good carriage; because there is a possible danger of the horse kicking when attached to it, which would be likely to damage or break it, causing serious loss. Better go sure at a little extra trouble. Fix up a pole-rig, as before described, to

drive the green colt in. One little point about the pole-rig. The poles will not be likely to go through the tugs; and, if they would, they would be too low. Attach a piece of rope, or a strap, to the saddle, tying to the turrets, improvising loops at the ends for the poles to run through, but short enough so that the cross-piece will come upon the quarters at the point where the cross-piece of the shaft comes. The whole thing is a temporary affair: you can tie the tugs with a piece of cord to the cross-piece.



A good sketch of a nervous, irritable kicker.

You are now ready to make the step of driving in shafts, which is, as before explained, usually a point of risk with ordinary shafts. If the horse should kick, he cannot do any damage. Usually the horse will drive nicely. You are now to test your subject thoroughly, backing him against the cross-piece, turning right or left, having the poles come heavily against the legs, &c. Drive until cool, and proved to be thoroughly safe. If not, repeat the lesson. We will suppose the kicker to be a strong, reckless fighter, of the worst kind. There are two classes: the horse of great activity and endurance; and the strong, tough, hardy, but cool fighter. If you have a black, dull iron-gray or sorrel, and sometimes a bay with large eyes, with much white, the lids thick, and long from eyes to ears, and ears rather long, a deep chest, a strong, bony, muscular animal, you have a kicker of the worst kind. It is hazardous for you to get him very warm or sweaty, as then he will become really desperate, while his determination



A good sketch of a bad fighter.

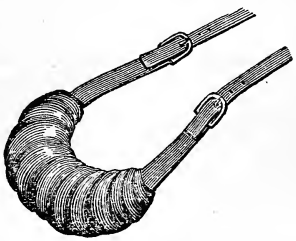
and courage are so great that it is difficult to make a point upon him before producing this condition. Yet, sometimes, horses that are of a very bad character will work in very easily, remaining frequently, after one lesson, perfectly gentle. The point is to work sure and quick. The course I now pursue is to feel carefully to see if I can apply passive treatment safely: if I can, I apply it quickly, with about all the power I can. If you can make this point without trouble, the rest is easy. If the horse kicks hard when the quarters or legs are touched with a pole, it is nothing: he will soon quit that, and stand quietly to be poled and touched as you please. The best way is now to bring up your pole-rig (if you have one, and, if you have not, make one), so that the cross-piece will come against the quarters, and keep doing so until you see no cringing or indication of kicking; now gradually remove your pressure as you can safely, and, at the last, turn the cord quickly into the double hitch, and hold your point with it. Follow up as before, touching the cross-piece against the quarters, and as the horse gives up let up on him, at the same time encouraging by kind treatment. Have a little oats, apples, sugar, and salt, or something else of which the horse is fond, and give him a little as he does well. Now put on the harness, and carry control to the mouth direct with the breaking-bit. First drive around with the harness until you feel that you have the horse well in hand. Now attach to the poles, driving and testing hard, in all cases making the horse submit perfectly to the control of the lines, though the shafts or poles strike the heels. No matter how well the horse works, try him carefully next day, and try him thoroughly, before you take the chance of putting him before a buggy. As a general rule, one or two sharp lessons will make a horse work safely. At least half the kickers taken in hand to illustrate principles before the class remain thoroughly broken of this habit, and can be driven afterwards safely. But the way a horse works in and yields to control must determine how much to do. When I have a good place, I sometimes, if I find the subject a bad one, subject the case, first, to first and second methods, because easily applied, and make a powerful impression: I now, if I think advisa-

ble, follow up with passive treatment. The second or cold, sulky class must be treated with the third method, or passive treatment. This class of kickers, though appearing to be very bad, usually yield easily to this treatment. If you subject them to the first and second methods you will be likely to fail, for you cannot always make sufficient impression upon the nervous system of such to control and hold them under subjection as you desire. When they warm up they become sulky and reckless. But when this excitement passes off, and the nervous system becomes cool, this temperament will invariably work in safety, making a very gentle, reliable horse. I could refer to a large number of remarkable cases proving this rule. The Hettrick horse of New York, the Hillman horse of Portland, with many noted horses, prove this. I often excite suspicion by stating that a horse that had shown a very sulky, bad character, after giving up, would be found next day, when cool, to be perfectly gentle.

There are many horses that will drive all right until irritated by some chance cause. One horse is all right, but will kick if the REIN IS CAUGHT UNDER THE TAIL; while another is all right if his head is under good control. If the rein irritates, and is the only cause of annoyance, you can easily overcome the whole difficulty as follows: —

LARGE CRUPPER.

Take the crupper, and wind the part that comes under the tail with a strip of flannel until it is about two inches in diameter. If the tail is stiff and likely to chafe, cover this flannel with a piece of chamois-skin. The proper course is to put on the crupper, and leave it on night and day for a week, and, when driving, for some time afterwards. This crupper is so large, that the line coming below it cannot be felt or held; while leaving it on a few days and nights wears out the undue sensibility of the part. If the horse is nervous and sensitive, and needs to

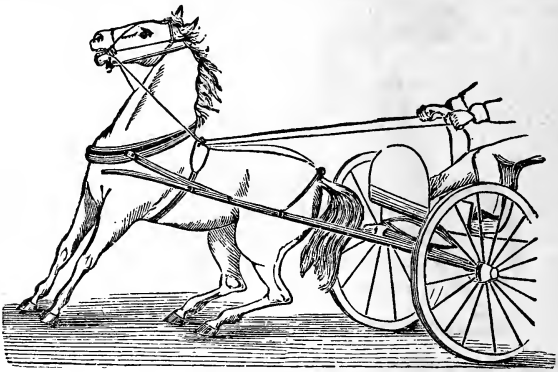


be simply held in check, either of the following methods can be used.

THE OVERDRAW CHECK

will now work well. But care must be taken to apply it rightly, or there will be cause for disappointment in its use. The object is now to simply disable the horse from his purpose at the least attempt to kick, which we can easily do, especially while in single harness. The best way to do this is as follows: —

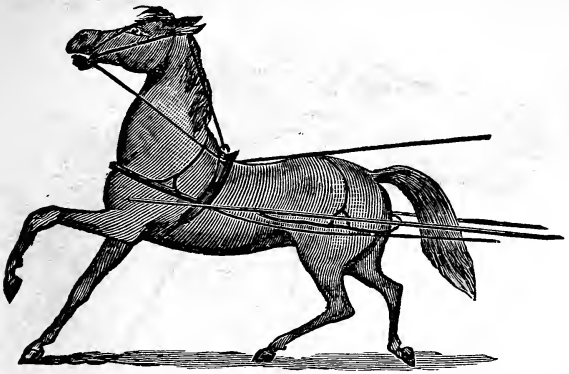
Get a small steel bit, and hang it loosely above the driving-bit in the bridle. Put the bridle on the head:



Overdraw check for kickers.

now provide yourself with a fine, strong piece of hemp or cotton cord, about three-eighths of an inch in diameter, and sixteen feet in length. Put the centre of this cord back of the ears, run the ends back through the rings of the small bit and through the gag-runners, which should be close up to the ears. (See cut.) Pass them now through the turrets and back through a ring, which must be attached as far back upon the crupper as possible, and attach the ends to the shafts on each side of the hips. At first this check should be drawn short, to bring the head as high as the horse can bear. The head is now not only high, but the least effort to kick will draw the check

tighter, and consequently pull the head up in proportion, thereby preventing the horse from doing any mischief. As there is manifested less disposition to kick, give more freedom to the head. When the animal proves safe, change, and use the common check-rein, at first rather short. A nicely rounded strap may be used, instead of the cord. It requires very careful and thorough treatment to reform a slow, reckless kicker, especially if the nervous system is much weakened in this direction. Or, use the check-purchase upon the reins direct, by either letting the cords extend to the wagon, instead of being

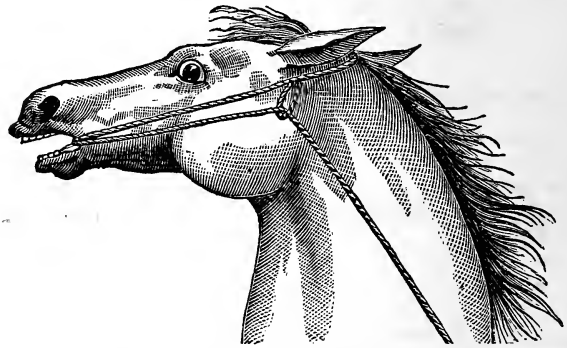


Simple Overdraw Check, to prevent turning round, or to kick if touched with reins.

passed over the hips and tied to the shafts; or attach this check by buckles to each of the reins, forward of the saddle. By this arrangement, when you pull heavily, you pull on this check in the same proportion that you do upon the jaw. The consequence is, a powerful lever purchase on the head, up and back. You can regulate your control by buckling this overdraw part longer or shorter to the reins; or you can have your overdraw ordinarily long, and have two strong pieces of elastic connecting the reins with the bit, so that when you pull hard the elastics would give enough to bring full purchase on the overdraw.

The following very simple form of overdraw will be

found very valuable, because so simple and easily made. If you have a good piece of cord, such as I use, or any small but strong cord, you can make a rig in a few minutes, that enables you to drive a pretty bad horse with entire ease. First, take a cord eighteen to twenty feet in length. Put the centre on top of the head under the bridle, about ten or twelve inches from this centre; double and knot about two inches from this centre, and we have now two check or gag runners which will come up near the ears. Resting the centre of the cord on top of the head, pass each end down and through the mouth, then up and through the loops before named, then back

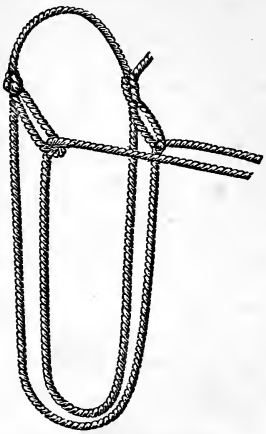


A cheap, simple means of driving a runaway kicker.

through the turrets to the wagon, same as reins. The higher the loops for gag-runners, the more purchase up and back. Any way you get great power upon the mouth and head; or, you can, instead of crossing the cords through the mouth, run them through the rings of the bit, and bring back up and through the loop on same side.

This gives all the power and control of the best flat reins, without the expense. You can use a bit if you wish, by passing cord through the ring on each side and back again to the gag-runner. Let the bridle be made to fit the head closely. Between the ears, a little inside of each, have a little loop, sewed on large enough to pass through two

small straps. Now attach to ordinary light check-straps a small steel bit, which is to be independent of the driving-bit; pass them through the loops above described, on top of the bridle and back to the check-hook in the saddle; make a little tight, and you have a powerful check, which will keep an ordinary sensitive horse helpless, and enable driving many kickers with entire safety. During my early career I used the ordinary

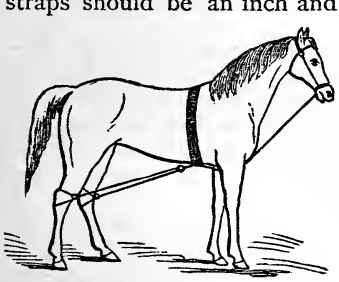


Showing how to make a cheap rig, with a small rope, to drive a runaway kicker.

KICKING-STRAPS

with much success. At this time they were the principal means of reliance for breaking kickers. I include here a cut of them.

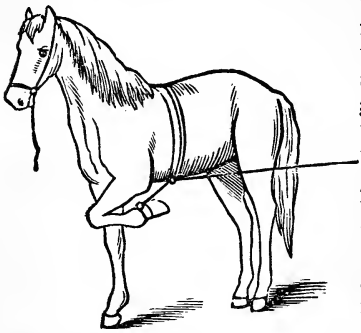
Have made four straps, like common hames straps; two long enough to buckle around the hind-legs above the gambrels, and two a little shorter, so as to be in proportion, to buckle around just below the gambrel. The straps should be an inch and a quarter wide, good thick leather, and the buckles should be heavy. Now have made two D's just twice as long as the straps are wide. This D should have the straight part a little rounding, and the corners not quite to a sharp point. Put a long and a short strap on each D, and buckle them around the hind-legs of the horse; the long strap above and the short one below the gambrel, bringing



The old kicking-straps to break a bad kicker.

the D in front of the leg. These we designate KICKING-STRAPS.

Put a strong, well-fitting rope halter on the head, tie a strong two-inch ring on the end of the hitching part, which should be of a length to extend between the fore-legs, over and just back of the belly-band. Then take a piece of strong manila rope, long enough to extend from the ring on the end of the halter back to each hind-leg. Pass the end of this through the ring to the centre, and tie each end carefully into the D's on the straps, the whole so arranged in length that the horse can travel easily and naturally. Now, as soon as the horse kicks, the most severe punishment must result upon the nose. Sometimes, instead of being around the gambrels (as in cut), I put them above the ankle at first, and when the horse gets afraid to kick and will drive easier, attach to the legs higher up. Attach one end of a strap or rope around the fore-leg below the fetlock; pass the other end back over the belly-band of the harness and back to the seat, where it can be held as a rein in the hand.



THE FOOT-STRAP.

This is a valuable means of control: it enables carrying out in the easiest and most practical manner, and with perfect safety, what Rarey tried to do by tying up the fore-leg, which deprived the horse of ability to travel; and a really bad kicker will balance on one leg when so tied, and kick, whereas by pulling the leg from under him on the instant there is shown a purpose to kick, the horse is thrown off his balance, disabled, and disconcerted, so that he can neither kick nor run; and this can be done on the very instant of resistance, since the leg can be controlled at will from the seat. It is especially valuable on a doubt-

ful, reckless, runaway colt. Attach another such strap to the other foot, and you have the most powerful horse helpless. I rarely use the foot-strap or overdraw checks now, as they are only palliative compared to the principle of bringing the horse under direct control by the proper course of subjection, and carrying out that control by the bit. It is only when the horse has no mouth, and is just cunning and treacherous enough to be watching for advantage and then liable to kick, that I would use a check or overdraw. The foot-strap may be found frequently of decided advantage in driving a colt the first time to a wagon or carriage, when you desire safety in guarding against a possible chance of resisting your control. I do all this now by getting the horse under quick and sure control; and when I hitch up a horse I have him safe.

The question is asked, How long will the horse stay broke, and what would you do to break a horse of kicking? Here you give us quite a variety of treatment. In the first place, if you have a bad horse to break, calculate to take a half-day at least for the job. Then go to work carefully and thoroughly; believe you are doing well to succeed in the time named, and you will be encouraged and gratified when you find your success complete in an hour or two. If a horse is a wildish, fresh, courageous kicker, and the habit has been excited by fear, or natural meanness of disposition, then by all means the regular course of subjection is the surest, easiest, and best, since it overcomes directly the cause of the whole trouble; when by driving and using the horse kindly, observing to test him carefully the next day, and if found at all sensitive, or not fully up to the standard of being entirely gentle, not attempting to jump or resist in any way when the cross-piece comes against the quarters, &c., make that point by all means before you go farther or attempt more. The point is to fix the character so that it is safe; and if the first lesson does not do this, do no more until you can. There is no need at all to make a failure: it is so easy to do, and only requires being careful and thorough to succeed, that there can be no excuse for the want of perfect success. If the horse is a savage kicker, one that kicks because he has learned to do it, and is one of

courage and bottom, you have frequently a horse that requires very careful, thorough treatment. If of a nervous-sanguine temperament, something like No. 78 or 79 on pages 74-75, take a thorough course: subject rapidly to first, second, and third methods; either perhaps would do; the third, or passive treatment would, in most cases, without trouble, but the point is to make as profound an impression and as sure one as you can without giving any chance for pull-backs. Stop all inclination to kick before you attempt to harness and drive. Usually there will be a struggle to fight you back when you attempt this, but you must be ready to force this point at all hazards, if necessary going back again to give your subjective course; but remember you cannot very well repeat passive treatment, as the mouth will be usually so sore as not to admit of it. Do all you can with the first and second. If, in driving, the horse sulks, and will not go ahead against the bit, which is frequently the case, put on the double draw-hitch, and follow up with single hitch ahead, as for a double balker, until you make the point easily. You may now in some cases use the foot-strap, though I do not find it necessary, holding your point of forcing to yield to the shafts striking the quarters; making this point, hold it at all hazards. When the horse will get cool, he will work decidedly better; work carefully; make all you can by kindness. The moment a horse yields to me, I treat him with the greatest kindness, rewarding him with presents of something of which he is fond. If the tail is the sensitive part, then put a large crupper under it, as given in another part of this chapter. If a horse that drives all right, but at times is liable to kick, most cases will submit easily to either form of overdraw-check. Do not, if you can possibly avoid it, handle horses in the presence of spectators: get them out of the way at all hazards. A sensitive woman should on no account be anywhere near you: nothing will touch their feelings so keenly as seeming abuse to a horse. Do not let any one see you, if in your power to prevent it, until your success is sure. Treat the horse now with great kindness; clean and feed him, but keep to work, testing and holding your point until cool; then your success will be surprising and most gratifying

to all. Another point I would urge, before closing this chapter: make up your mind, at all hazards, that you will not get mad yourself. The moment you give way to this sort of feeling, you are throwing away your strongest and best hold; and besides, as I have shown you, it is the best point of your success to keep positive control of yourself.

KICKING WHILE HARNESSING.

Put on the war-bridle (small loop), and work up with it sharply right and left a few times, then pull down tight, and tie into a half hitch. While holding the cord in the left hand, step back, and pass the hand from the shoulders to the hind parts gently. If this is borne, take the harness in the right hand, and work it back gently over the back. As this is borne, untie the cord, and tie down, so as to give the mouth a little more freedom. Now go back, and handle as before, being careful to be gentle: if there is resistance, punish sharply, tie down short again, and put the harness on. When there is submission, untie, then work back as before: at the least indication of resistance, tremble on the cord until the horse will bear the harness, while free from restraint.

KICKING WHILE GROOMING.

Some horses are so thin-skinned, that they can scarcely bear a currycomb on the flanks or legs, and when excited by rough treatment and too severe use of the currycomb, are easily made vicious to handle or groom. Put on the war-bridle, and after working up with it, hold tightly, and with the left hand use the currycomb on the back, gradually working to the sensitive part: as there is submission, give a little more freedom to the mouth, and work back lightly. If the horse seems unable to bear the currycomb, use the brush instead, and that, if necessary, lightly. Work lightly and indirectly to the sensitive part, at the same time speaking gently. It is almost impossible to overcome this habit, if there is not gentleness and kind treatment.

The currycomb is used too much by most grooms. A sharp-toothed, brass currycomb *must not be used* on a thin-

skinned horse: use a brush. I should *want* a horse to kick a man out of the stall, who would use a currycomb with needless severity, or be otherwise needlessly harsh.

KICKING WHILE SHOEING.

If at the start the colt were subjected to the simple course of subjection, and the feet handled and taken up gently, there would be no trouble whatever. Nothing is done until the colt is taken to the shop to be shod, when, possibly excited by fear, and the rude efforts of the smith to shoe him, he will learn to kick and fight with energy. The moment you take a horse's foot, and he learns he can kick you away, it is not safe for you to try to control him by main strength; for if a strong, courageous horse, he is not only liable to injure you, but defy your efforts. We once in a while get horses of this character that are wholly unmanageable; frequently old horses that are so bad they never have been shod.

Any ordinary case will yield readily to the war-bridle. If this will not do, try the double hitch; but few will resist this; and it will do the work so quickly and safely, that, so far as it goes, it is unrivalled. If this fails, then subject to passive treatment. In the mean time, attach a rope or strap around the hind leg, and with it, pull the leg back and keep pulling it, so long as the horse will kick and resist. When the foot is given back freely, then pull it forward until submissive. Take it now with the hand. As there is submission, let up. At the last, use the double hitch or war-bridle, which will give you all the control you need. Each foot must be treated alike. We control the worst horses before the class, by this treatment, in from five to twenty minutes. Any ordinary colt or horse will stand to be shod gently by blindfolding, or tying a blanket over the head, so that the horse cannot see.

KICKING IN STALL.

This is one of those habits that require care and judgment to guard against danger. Let the horse know, by some signal or command, of your presence and intention to approach. Many horses of the gentlest character would kick if approached suddenly and unexpectedly; and again,

many horses that are gentle, but a little peevish, will not bear being approached without a little care in attracting attention. The motion of the ears and lips, and expression of the eye, will always notify of danger. And here let me warn the reader, that, however careful he may be in not going too near the horse, there must not be a semblance of fear shown in language or actions. The command must be low and positive, indicating power. If the horse will not move round and seem to be distracted from a positive intention, stand still, or walk off, carelessly whistling, in such a way that the horse does not see that you feel defeated.

If you have his attention, repeat the words "get around, or over," with a positiveness that must be obeyed, looking at the eye as if you could and would overcome all opposition. When you see the horse shrink from your gaze, glide up to the shoulder, before the mind can be made to act, and the next instant let the left hand be passed along the neck and down the head to the nose-piece of the halter, and you are safe, as the horse cannot now kick, strike, or bite you. I have repeatedly got to the shoulder of horses in this way, that would kick and strike the stall just after I passed, yet not be struck: it is a feat, however, that must not be attempted unless necessary. In going out, the rule is the same. Pull the head towards you, looking at the eye sternly; this will throw the quarters from you, and at the instant you let go, glide out, and you are safe.

If the horse is vicious and dangerous, he should be subjected to the regular treatment until there will be no trouble; or, put on the war-bridle. Lead the animal into the stall, then step back opposite the hips and say, "Get around." If there is not prompt obedience, give a sharp jerk, which will throw the hind part from you. Repeat this, and in a short time the horse will learn to step around promptly when commanded, and allow being approached. If the horse is persistent, leave the cord on, the small loop being left larger and passed through the rings of the halter. As you now step out, retain the cord in the hand and hang or tie the end to a nail on the post, leaving sufficient length to permit the horse entire freedom to the halter. Now, when you desire to go into the stall, if the

horse does not step around when commanded, untie or unhook the end of the cord, and give a jerk upon it, which will bring the animal to his senses. Leaving this on a few days, caressing and giving presents of sugar, apples, or any thing of which the horse is fond, will soon not only break up the confidence, but so enlist the attention that your approach will be looked for, and invited, by stepping around, and endeavoring to reach toward you for the present.

I would here observe that there are very many men who are not fit to have any thing to do with a sensitive, well-bred horse. They are either so coarse and harsh as to excite resentment and hate, or so dull and ignorant that they can not or will not see that they must both conceal fear and avoid danger. They will not do either. They abuse and show so much fear as both to excite and encourage resistance ; and, without the genius or tact to correct the cause of mischief, they attribute all the trouble to the natural viciousness of the animal.

Sensitive horses should not be teased in the stall, or while cleaning, by pinching, pricking, or whipping, to "show off," as the term is. Gentlemen who own fine horses should be very particular about this ; and a man who would in any way persist in such treatment should be kicked out of the stable.

BALKING.

This habit is the outgrowth of ignorance and bad treatment. It is also, when attempted to be done by the ordinary system of rough, exciting force, seemingly one of the most difficult habits to break up. The moment you go to whipping and pounding a horse, as is usually done, you not only irritate to greater resistance, but blunt the sensibilities to such a degree, that in a short time the greatest abuse may be inflicted without having any more seeming effect than to make the horse more stubborn. When a horse finds you cannot make him go, he will balk at the least cause or annoyance, or want of it. While in harness you should not, by any means, commence your tactics by treatment which forces you to defeat, and makes the horse worse.

WHAT KIND TREATMENT AND A LITTLE PATIENT MANAGEMENT DID. — AN INCIDENT OF EARLY EXPERIENCE.

When but a little more than a boy, I acquired a great passion for trading horses, frequently trading five or six times a week. In this way I got on my hands from a sharp horse-jockey, a pony mare, nine years old, that was known as the most stubborn and reckless balker ever known in the country. She had been through the hands of the best horsemen in the country, but, proving wholly unmanageable, the owner would trade her off as quickly as possible. When I got her, the man who traded her to me, laughed and said he "guessed I had something this time that would stick me; that if I could drive her I could beat any living horseman; that every possible means had been tried to break her, and she beat them all." I said in reply, that I did not anticipate any real trouble in making her work for me. I looked the mare over carefully, and made

up my mind that she was a bad one; still, I did not have the most remote idea that I could not make her work, yet I did not know just how I could do it. I have one quality of nature, and it is about all that I could ever feel nature did for me — it is that of great perseverance. Indeed, whatever my success, it is all the simple growth of great perseverance. First, I improvised a cart and harness. I next went into an orchard, and filled my pockets with the best apples I could find. I now pulled the cart, leading the mare into a by-road, took part of the apples and cut them into small pieces; next I provided myself with a switch, and, with harness on, led the mare to the top of the hill; standing at her shoulder, I tapped her on the hip with the switch until she started, at the same time saying, "get up!" After going a few feet, I called out, "whoa!" holding by the rein to do so. Immediately I gave a little apple, then I repeated this operation, but gradually going a little farther back each time, but carefully rewarding, for each movement of going ahead, with some apple. This I repeated until I could stand behind and she would do the same, but carefully rewarding her obedience. This little point established, I now led her back to the hill-top, and attached her to the cart. Again, I commenced as before, first standing at the shoulder, and going a little farther back and carefully rewarding at each successive step of obedience, until I could, as before, stand behind and make the start and stop at command, but always carefully rewarding, but not giving but little of the apple at a time. I soon got on the axletree, and repeated as before; then with the seat, letting her go each time a little farther, until I could go for some distance. Gradually I repeated this up the hill. Next day, at first, I worked cautiously, until I got her attention, and from the start she responded to every command. In a few hours I could stop and start her at will in a buggy, and she would work gently and promptly as required anywhere. Now this was but a little common-sense in the way of management. This sort of tact is always to mingle with your treatment of the balker. An ordinary young horse, of good disposition, can usually be made to go on by a little patience and tact in winning and humoring him to go, if possible not to let the horse feel or know that he has balked. You should be careful about

removing, so far as you can, any cause of needless irritation. Perhaps the collar fits badly, or the shoulders are sore. If the horse is compelled to pull hard, either from being too heavily loaded, the steepness of the hill, or the depth of the mud, be very careful to aid all you can by not letting him pull so far, or so much at a time, that he gets tired out and blown. Second, stop him where he can start the load most easily, resting often. Encourage all you can, coming to the head and speaking kindly, rubbing the nose, &c.; in this way you can get a horse that is not over-steady and honest to pull heavily and faithfully, that an effort to rush through under the whip would soon make balk badly. If a horse in a single team balks, first let him stand a while, ease up on the collar, fix the bridle, or gently take him by the head, always breaking the force of the load by turning a little sideways. Any means of disconcerting the horse will frequently enable making your point. Any of the ordinary tricks of twisting the tongue, putting cobbles in the ears and dirt in the mouth, really amount to little or nothing. For a simple trick that is perfectly harmless, blindfolding is about the best way of making your point. This will disconcert so much that he will move on all right. If in double harness, get to the heads, turn them to the right or left, and with a little tact you can usually get the horse to go on; this may do when a horse has merely learned to balk. Every time you fail to let such have their own way, and often when you do, they will balk in defiance of any amount of kindness and good management. To break up the habit, you must be able to force the horse from his position, then win the better nature into co-operation, and you can break any horse, old or young, of the habit easily.

BALKING IN DOUBLE HARNESS.

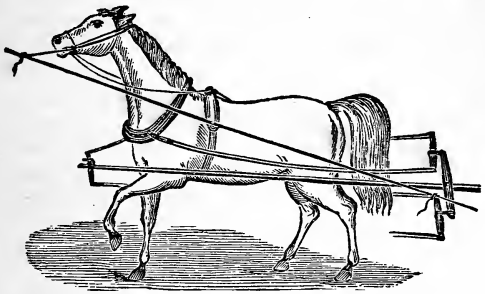
This is to the horseman a most perplexing and difficult balker to manage. There is no chance to get at him to make him work. The whip is the usual remedy, which will only make matters worse; yet nothing is easier to do than to make this class of balkers come to terms, if you will only go to work properly.

Various ways are available. First, after being harnessed, put on the war-bridle, with part over the neck up to the ears.

If you have no gloves on, get a broomstick or any ordinary piece of round pole, about six or eight feet from the head, wind the cord around your stick so that it will not slip, stand quartering, and give a quick, energetic jerk, gradually repeating until the horse will come forward promptly without any pulling. This point must be made, and some horses will fight it quite hard for some little time. Usually it is submitted to in five to ten minutes. Be careful that the cord is under the bridle, not over it, on top of the head. Now splice a piece of good stiff sapling on the end of your wagon-tongue, so that the pole will be extended in length about three feet beyond its ordinary length, and bore a hole in the end. You are now ready to make the next step: hitch up the horse to the wagon as usual; tie your war-bridle cord to the end of the pole, by passing through the hole and tying firmly, giving length to allow of entire freedom, so long as the horse will do his part. Tie back the whiffletree of the gentle horse. If he will not go when commanded, start up the gentle horse quickly: this brings the wagon and pole ahead, and the first the horse knows he is jerked off his feet, and obliged to start and keep going. After going a short distance, stop; then say "get up," starting the gentle horse quickly, which will bring the other off his feet again. About the third time he will be glad to go when the other does, and you have him all right. Test him hard, so that there is no inclination to fight back. A little more complicated way is the following, which is better, and is more especially adapted for balking before the plough: Put on the war-bridle as before, and shown in the class instruction, and pull ahead, following up carefully and thoroughly, until the horse will come ahead freely. Next get a good stiff pole, about twelve feet in length, bore a three-quarter-inch hole, three or four inches from each end. The length of the pole, you see, must be adapted to the length of the horse and tongue. Lay this pole over that of the wagon, the end over that of the true horse's whiffletree, and tie firmly on top with a piece of cord. Now step forward, and tie a piece of small rope from one hame-ring to the other, of the horses, under the pole, so as to be just taut when in position. Pass another piece of the same sized cord around the pole, and tie it into the true horse's hame-ring short

enough to hold the pole in the centre. Or you can get a ring that will slip over the pole easily, and from it extend a cord or strap to each hame-ring, and run the pole through this ring which will hold it in place. Tie the cord on the head now to the pole through the hole at the end, and leaving it just long enough to give freedom, so long as the horses keep even; but as soon as there is refusal to go, the strength of the true horse is brought by the pole on the head, which will compel going ahead. (See cut.) Start and stop the horses until obedience is secured. This pole may be left on an hour to half a day as desired.

The horse should not be required at first to use much strength in drawing. Let this be required gradually, as there



Pole applied to balker, as shown when attached to the off horse.

is obedience and willingness inspired to work. It is a grave fault to try to make the horse work immediately. This must not be attempted. First, create a willingness to start when commanded, then gradually increase the load until it becomes habitual to draw when commanded. I forgot to mention that when the purchase is obtained by extending the wagon-tongue, at first let the wagon be empty. As you make the horse go as desired, then gradually put in load. Either of these methods, when applied properly, will break a horse of the habit. It gives all the advantage needed, and only a little care is necessary in carrying out the principle and practice to break any horse easily of balking.

A SIMPLER WAY.

Sometimes a horse will respond to the following means readily. Young horses, of a nervous temperament, will be most likely to submit surest and easiest. Take a small but strong cord, same as I use for war-bridle if obtainable, about twenty-two feet in length; double it, and place the centre under the balky horse's tail, same as a crupper; twist the cords two or three times, and bring them forward, through the turret and across to the hame-ring of the gentle horse, or extend forward, and tie to the end of the wagon-tongue. Tie back the gentle horse's end of the double tie. Now the purchase is directly under the tail, which will make some young horses work all right in a few minutes; but others, of an old and stubborn character, are likely not to submit to it. If colts are made gentle as I direct by the second method of subjection, there would be no inclination to balk, double or single.

BALKING SINGLE.

This is more difficult to overcome, but by no means impossible, even when extremely bad, to break up easily. We have the right principle, and can carry our control to any extreme desired, making success certain with reasonable effort. If I desire to be particular, I hitch up the horse as if to make a journey, making no effort to break him; but I am ready for this point when the time comes. I let the horse go anywhere he will, if I can get him to go at all, until I get him into some back street or field. Now is my time; for I caution you, it does no good, as a rule, to work a balker in a barn, and then expect he will drive all right out of doors. You will usually find him as stubborn as ever. Secondly, you must not try to break the horse in the presence of people, and be very particular to be where ladies cannot see you. If the horse balks with you in a public place or street, get him out of it as easily and with as little excitement as you can. I urge this upon you strongly: wait until you have privacy and time to make your success sure and practical, without annoying the feelings of others. Arriving at such a place as you wish to subject the horse to treatment, make him balk. Unhitch him, and tie up the tugs and reins carefully; put on a halter, and submit him to the second method of subjection,

reversing once or twice. Make this point thoroughly. Now put on the double hitch, and make the next point thoroughly, of making the horse lead without an impulse of resistance. Then turn the cord into the simple form of war-bridle, and pull ahead as for double balking, or to lead until that point is well made: be very careful that the cord is under the bridle. Now tie the cord into the turret, and drive around by the reins, making the horse start and stop as desired, and for which reward liberally. You are simply, all the time, only preparing for the real tug of battle, by weakening the horse's confidence sufficiently to be able to force him over the point of resistance when hitched, and thoroughly overcome all inclination of repeating the habit. It is easy enough to make the horse go and work quite well for the present; but the real point to be made is to get up so thorough a re-action in the mind, that there will be no inclination to balk afterwards. So when you hitch to the wagon, work as gently as you can, at first feel your way, stopping and starting with all the delicacy and encouragement you would do without the resource of power.

If you have made previous work thorough, the horse will be likely to work in nicely. If so, work slowly and gently, with the utmost kindness, until he is cool and entirely over the excitement. It is, however, often the case the horse will resist with great stubborness when you hitch him to shafts. Try the simple form of war-bridle first: it will usually make the horse yield the point; but if he fights it hard, increase your power by using the double hitch, which will rarely fail. If, however, the horse is a stubborn, plucky brute, unhitch, and go back at once to the second course of subjection, now occasionally giving a keen cut of the whip across the tip of the nose, which will hurt intensely. Follow up again as before, hitching up and driving: when there is prompt obedience, reward with the kindest treatment. You should always carefully test the horse once or twice the next day, and see there is no intention left to repeat the resistance. If all horses were alike I could give a definite rule; but, as they are not, we must simply harmonize the efforts to the case. Ordinary cases yield readily to one sharp lesson. The second method of subjection is by all odds the most reliable and valuable means of breaking single balkers. This treatment, properly ap-

plied, will remove all inclination in the colt to balk or kick. No other principle, yet discovered, is so humane, simple and practical. Combined with other treatment referred to, it will enable perfect success in every case.

WILL NOT STAND. — IF STOPPED, WILL BALK.

This is also the result of the old defective treatment, that does not give any thing for removing inclination to the habit. It is a habit that is entirely the result of ignorant and bad management. A horse would just as soon stand as do any thing else, when shown properly; but when the colt is allowed to go as he pleases, and learns to pull against the bit, pulling him back to stand only makes him restless and eager to go, and is very likely to make him mad, and, if not allowed to go, he may balk. Some horses will learn this habit very quickly, and, once started in it, are very persistent. It is a habit, however, brought easily under control. If the horse has a good stiff mouth, and pulls ahead upon the bit, a few minutes' lesson with the breaking-bit will usually make him stand kindly. If this will not do, subject him to a second course of subjection. Next, put on harness with breaking-bit, and in a peremptory manner force him to stand: if he lunges ahead, set him back on his heels, which you can easily do with this bit. But it is equally important that you make the horse start as promptly. If you are too positive in your control of the mouth with the bit, the horse may now balk; and this is the point to be next overcome. Try the whip first, by giving him one or two keen cuts around the hind legs, up near the body. Simply stop and start until there is prompt obedience. One lesson of this kind will control all common cases, but it is possible your subject will balk squarely and in the most positive manner; then try the double draw hitch and war-bridle, as before explained, in another part of this chapter, until there is prompt obedience. It is rarely this will not enable perfect success in a few minutes: it will in every case if used properly. If an exceptionably bad case, the regular course, as for single balking, may be used. If the horse is of a high-strung, irritable disposition, — one of those that seem to work in easily, yet is restless and irritable, — it is possible you must work slowly and carefully, especially so if sensitive to the whip. The course

I would take is this; and if you are at all careful and handy, you will succeed easily. First put on the double draw, and lift the horse a few times out of his tracks. This will be a new idea of your power, for this is fearfully powerful in its way. Once yielding to you, turn this into the simple straight war-bridle, and lift him ahead until he comes promptly. You have now made a good start: now put on the harness, and with the reins stop and start him. If he gets mad, and will not start, lift him with the war-bridle. As soon as he yields, caress, and reward him with some apple, sugar, and salt, or something else. Drill him on this point as follows: start him a little, command "Whoa!" and stop him; step forward, caress, speak kindly, and give something. Go back, starting him moderately, letting him go a little farther, stopping and rewarding as before, until there is prompt obedience, and the mind is thoroughly fixed on the idea of the reward for obedience. All this will require but twenty, thirty, or forty minutes at the most. Head your wagon towards the barn or wall, but some distance away, and hitch in the horse, being very careful that the reins are in the turrets. As soon as geared in, go to the nose, right in front, caress a little, at the same time give a little something of which he is fond. In this way hold the attention a minute or two, then walk ahead slowly, and say "Come:" the horse will instinctively follow. After going a few feet, stop him, reward again, standing a little while, but carefully holding the attention. After a few movements of this kind, gradually at each repetition get back to the shoulder side, and finally into the wagon, and, as you repeat, now get in and out of the wagon, making more stir and noise, but each time going forward, when the horse will stand rewarding him. Get in and out this way, and gradually winning the horse's attention from disobedience; hitch and unhitch him, getting in and out of the wagon until you can put him in shafts; pick up the reins, and make all the fuss you please, and he will wait for the command to go, before starting. Great care should be used about hitting a sensitive horse with a whip the instant you get in. In this way some horses will learn very quickly to become impatient and restless. If I could see the horse and the man, I could tell exactly the treatment most advisable. I would advise you, if you are a timid and not very

strong man, who would avoid any thing like abuse or a fight with the horse, to take this course. You will be surprised at your success; but it may take you several hours to do it. Then be careful for a few times, hitching, taking a few moments in stopping and starting as before, and rewarding; then gradually let the horse out to his work. There is a great deal in this sort of natural tact; and I would ask, What are a few hours' or a half-day's time spent in this way, compared to the gratification and success the effort accomplishes?

RUNNING BACK.

If, in training the colt, you make him back too freely when pulled upon, you are liable to have this habit learned, which is a very bad one, because so much beyond control. It is on this account I repeatedly warn not to try to back the colt until he learns to go ahead and sideways, and does it well, and be careful not to get the colt's mouth too sensitive. No matter how stubbornly a colt may resist the bit, or how hard the mouth, there will be no difficulty of making it as sensitive as you please with the breaking-bit. If, for example, you were to force the colt to back while warm, and after a desperate struggle, you will find that next day the colt will be too light on the bit. Make him go back now, freely, a few times, and the habit is established; or if restless, and you pull back sharply, making the colt to run back, if you are not careful, it will become an established habit.

To break up this habit, there must be established a thorough fear of the whip, so as to induce going ahead when commanded. Put on harness, and tie the tugs into the rings of the breeching rather short. Drive around with the reins, giving a sharp cut, with a good bow-whip, around the legs once in a while, if not prompt. As the horse learns to spring ahead when commanded, pull a little on the lines, gradually repeating until he will pull quite hard on the bit to go ahead. Make this as thorough as possible. In driving, repeat this, going ahead promptly, whipping up sharply once in a while, if necessary.

The main point is to create a thorough fear of going back. Now, attach to wagon, and gradually work up with whip. The foot-strap may be put on, if there is any possible danger of the horse running back when hitched.

The course I take is this: with the harness on, and refusing to go ahead, or after running back when pulled upon, I put on the war-bridle, as for double balker, and I lift him ahead; and he gives up all inclination to try again to resist. I follow up now, using the whip around the hind legs once in a while keenly; the main point being to be thorough; at first, if thought advisable for security, using the foot-strap when attached to a wagon. This is a habit we break up very easily. Once the inclination is overcome, the horse is usually safe.

RUNNING AWAY.—WILL NOT BACK.—PULLING ON ONE REIN.

This habit is the result of the present defective system of breaking horses. Nothing is done to overcome the nervous sensibility and fear of the colt or horse. He is simply put in harness. There is no certain control of the mouth by the bit. Something goes wrong, which excites the fears, and away the horse goes, in defiance of any restraint upon the mouth with reins and bit, as a reckless horse can run away in defiance of the united pulling of several men on the bit. It is an important part of our programme not to make a failure, or expose to injury or loss; to be able to measure the difficulty of the case, and make no guess-work in its control, is the first condition. An ordinary case will, of course, yield readily to a firm, strong hand and sharp bit; but all this is only palliative, and far from sufficient when a horse is decidedly bad, and learns to rush against the bit. The main point of my success in the management of this habit is in going to work indirectly at the cause; and here I am most thorough. But I do not stop here: I culminate my treatment upon the mouth; and after once taking the point in hand, never leave it, let the time be short or long, repeating, if necessary, until the mouth is perfectly plastic to the gentlest restraint of the bit. Thus I can and do make a radical reform, and it is the only way it can be done practically. The first step I aim for in training the colt, is to make him as gentle as any old, well-broken horse; the next, to get perfect control of the mouth. I am, in consequence, able to do easily and surely what is very difficult, if not impossible to, by the ordinary system of bitting and

training, and leave the horse perfectly gentle and free from inclination to resist control afterwards. If it is fear of being touched, or of any thing behind, that causes the horse to run away, that sensibility should, as far as possible, be at first overcome. The average of such horses have been frightened by the breeching, or something, giving way; and the fear excited by the unusual contact makes the horse afterwards partially or wholly unmanageable. If it is fear of the wagon, resort to FIRST OR SECOND methods of subjection, or both; and, as this habit is often combined with that of kicking, the cause of the excitement must be removed, the same as in kicking; so that you can take either of the methods of subjection, as you may find advisable. Having made this point, next get the mouth under control with the breaking-bit. Experience teaches me that the surest and best way is to overcome all tendency of pulling against the bit, on the same principle we remove all tendency in the horse to kick by overcoming the sensibility of the part; here the difficulty being that of pulling against the bit so hard that the horse cannot be held. The true principle of success is to combat the resistance directly, until it is entirely overcome, and there is perfect obedience to the slightest restraint of the reins. Neither is this difficult to do: on the contrary, they yield to this treatment so readily that I can bring the average of such under perfect control in fifteen to twenty minutes, so that they will, at the word, stop instantly. This was the secret of my driving the Malone horse, Wild Pete, and other noted horses, so easily, referred to in the first chapter. I frequently get horses that cannot be made to back, resisting even the pulling of six or eight men on the reins; yet, after a little effort, on this principle, properly directed, they will soon learn to back freely as required, to the lightest pressure of the bit on the mouth. The principle is the same in breaking up the habit of

PULLING ON ONE REIN.—WILL NOT BACK.—TURNING AROUND.

Overcome the resistance on the side pulled against by pulling on that side sharply, until resistance ceases, and the habit becomes easy to break up. Whatever we do, we must ultimately depend upon our control of the mouth. If this is

defective, our work is at least but half done, and the usual result is some form of resistance to the bit. The breaking-bit gives a sure and easy means of obtaining control of the mouth, and thus of avoiding as well as breaking up these mouth habits, so difficult to reach by other means. After subjecting the horse to treatment until not afraid of having quarters, &c., touched, put on the harness, with breaking-bit in the bridle ; run the reins back through the shaft lugs ; get behind and take a firm hold of the reins ; give a quick, but slightly raking pull, whether the horse gives or not. After a short interval repeat, pulling harder, or not, according to the resistance of the horse. In this way follow up until the horse will give freely to the bit. Now move the horse forward on a moderate walk ; call " Whoa ! " sharply, and, if he does not stop, bring the weight of the body upon the mouth as before, with a sharp, quick, raking jerk, which must, if possible, be strong enough to stop and throw the horse back. After a short interval, repeat this movement, stopping gradually, and letting out the horse faster, until you can let out on a fast trot, and run or stop instantly at command. All this should be done out in the yard or field. You can tell by the prompt and easy submission of the horse when it will do to make the next step of driving to wagon : when you do commence again, back and work up, holding your point of control up to the fastest gait. The slower the horse moves, the more easy your control ; the faster, the less. So your policy should be to take advantage of every point in your favor, which lessens resistance and increases your power to the end of perfect success. Unless you know you have the horse perfectly in hand, you should not let him out to a fast gait, and then try to hold or stop him. If you do, and fail to stop him as you desire, the horse will gain courage by the resistance, and be likely to run away with you, or try to do so. There are a great many who think, because they are strong, they can hold any horse : give them only a good hold of the reins, and they are not afraid to drive any horse. If you are of this mind, your confidence is based upon ignorance and inexperience ; and you are worse than a fool for taking chances so much against you, and which do not in any way prove skill. No one man, or even four men, can hold, by a dead pull, even with the

power of the breaking-bit, a horse of decided courage and nerve, that has learned to lunge savagely against the bit, from fear or other cause. It is not unusual for the writer to have horses brought forward, of this character, that at first would pull, on a walk on the barn floor, against the entire strength of from four to eight and ten men.*

If given the advantage of motion, such horses could carry along almost any weight thrown upon the mouth from a wagon. I admit there is no great difficulty in holding any common horse, even with an ordinary bit; but I am referring to horses that have resisted, and would run away in defiance of, any bit or control of any rigging in use upon the head. I frequently have horses offered for treatment before the class that had overdraw checks and reins, and the most powerful bits used upon horses, that would run away at the drop of a hat, in harness, regardless of any restraint by such means upon the mouth; yet it is upon such that I have and do make my greatest hits of success, and I never found one I could not make so gentle as to submit to be driven as I pleased, under excitement or not, with entire safety. I will refer here to a few exceptionally bad cases. In Memphis, Tenn., a large white horse, owned by a coal-dealer named Watson, had run away several times in succession. A mule and horse drover from Alabama, who openly bragged that he could drive any living runaway horse, after the greatest deliberation and care, made the experiment. The bad character of the horse, in connection with the great pretension of the man, who had the advantage of being large and powerful in build, made the case interesting. The horse ran from the first jump, the man having no control whatever over him, resulting in almost fatal injuries to the man; the horse smashing the wagon, and clearing himself from all encumbrance. The next and last attempt to drive him was by a mule-drover from Mississippi. He knew he could drive the horse: he, in fact, claimed to be invincible. This time the man was thrown, an arm broken, and almost fatally injured; the horse running into the Mississippi River, and was res-

* Twice during the past winter ordinary sized horses, noted runaways, treated before the class, pulled at first against the united strength of ten men, on a walk, with such desperation as to pull themselves down upon the belly on the floor, yet were broken so thoroughly that they were afterwards perfectly safe.

cued from drowning with great difficulty. Both men were still in the city, confined from the effects of their injuries, when I went there. It was well understood that no man could drive this horse; and no man in that country could be induced to try the experiment again, for love or money, so bad was the reputation of the horse. I brought this horse under such complete subjection in an hour, that I did every thing with him that could be done in the open street, to show his perfect docility; allowing him to trot off up the street, ten rods away, and make him stop instantly at command. Gen. Forrest, Gen. Rucker, Capt. Forrest, and others combined to break me down. They believed I had given the horse medicine, or something else. The horse was put under lock and key for a week, when I was commanded to drive him: I did so, with perfect success, proving the horse perfectly safe. The success of the trial was so great as to win for me the voluntary indorsement of the gentlemen named, including other leading citizens, who became members of my class in that city. In Garrettsville, O., was owned a nine-year-old horse by a livery man, named J. R. Gates, that would run away in harness any way they could fix him, and was wholly unmanageable. After one lesson, of not more than thirty to forty minutes' time, he could be driven, perfectly gentle, and after standing two weeks without doing any thing more with him (for upon trial I found him safe), he was driven to wagon by me down the main street of that village, controlling the horse by word, while ten rods behind. He was sold as a family driving-horse to a gentleman in Pittsburg, Penn., and has remained perfectly gentle. Wild Pete, the Smawley horse of Petroleum Centre, Penn., referred to on page 14, was another remarkable case. This horse was actually wild and desperate. It was an utter impossibility to drive him, or hold him in harness. This horse was generally known, and all laughed at the idea of breaking or driving him. I made the public declaration that I would drive him, perfectly gentle, in an hour; and I made the statement good by not only doing it, but broke him in the time so thoroughly that he has been used as a family driving-horse since, and he has proved absolutely safe. When in Toledo, O., I broke a five-year-old colt, owned by J. P. Collins, proprietor of the track there, in one lesson of

forty minutes, that was entirely unmanageable in harness. Mr. Collins, as a last resort, with the purpose of driving him at all hazards, tied the horse back to another by his side, and even then the reckless young brute succeeded in getting away. I could multiply these exceptional cases by the hundred, if I desired: indeed, almost every day or two, colts and horses are brought forward to be handled before the class, that cannot be driven in harness, — horses that have been spoiled, or that had never been put in harness; and with some only exceptional cases I have no trouble in driving, even without breeching, in fifteen to thirty minutes. The point to be attained is, to weaken the resistance, and get perfect hold of the mouth, making it perfectly flexible to the restraint of the bit. If the horse is cold-blooded and decidedly courageous, you are, at first, likely to experience great opposition; for in proportion as the horse is warmed up, he will be likely to fight your effort to control him with an insane fury that makes him seem regardless of any thing you may do. This is not unusual if the horse is a very bad one, and has been successful in resisting the bit. Have no fear of the result. Keep cool; follow up one point after another until there is complete submission, and your success will be sure. The course I take is this: if the horse becomes warm and reckless, to stop until cool, when I go to work as before; you gain a great advantage by letting the horse get cool, as he is now, from the effects of the previous lesson, keenly susceptible to pain, and can usually be rushed over the point of contest before he gets warm again. The sensibilities are so blunted, when thoroughly mad and warmed up, that it is difficult to make the horse yield when greatly excited; but, however stubborn, letting the horse get cool and then repeating the lesson will insure success. I will say here, that I never in all my experience had any serious injury result to the mouth by any seeming severity. If I find the horse is of a strong, reckless, positive character, I go to work very carefully, giving myself time to repeat the lesson.

CAUTION.

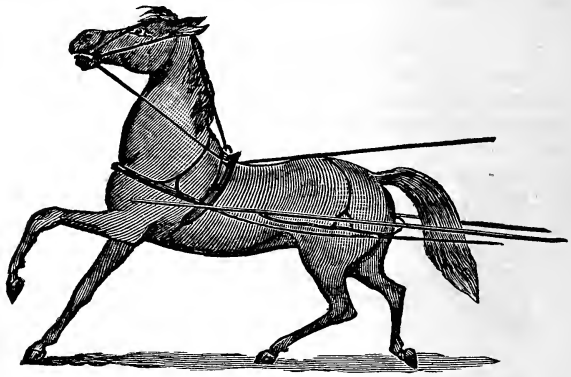
I would caution here not to push colts by fighting them too hard with the breaking-bit. But we will suppose the colt is but partly broken, — has a strong, heavy mouth. If

he becomes warm and resists desperately, and you push through until he yields, you will be likely to find the mouth so tender, the day following, that he will not bear at all against the bit. It is this yielding to restraint, by acting persistently upon the mouth with a certain form of bit, that enables me to break and control all peculiarities of resistance to the mouth so easily; and the ability to break of pulling on one rein, refusing to back, and of running away, may all really be classed under one head, because broken by the same principles of treatment. The horses referred to on a previous page were each broken by one lesson. I have had, however, many cases I could not control without repeating treatment, once or twice, and in two cases — noted horses — repeated three times; but my ultimate success was complete. I think it proper, before closing this chapter, to include a description of other means of great value for the control of runaway horses, — means by which we can restrain and control kickers, by direct power to force the head up and back, and will work equally well on the runaway. Here I would call attention to the different forms of reins, given in the chapter on kicking. Either form gives great power over runaway horses, and in many cases of lugging, or pulling against the bit, work admirably. The foot-strap, overdraw-check, or power-reins, will enable the easy control of any ordinary runaway horses. The power-rein, or purchase, as shown by the cord illustration, which can be modified, if desired, by using reins with corresponding construction, to give the pulling power upon the head, can be substituted. But, as I have stated before, I discard all these means now in my practice.

TURNING AROUND.

This is another habit that results from defective mouth-training. With some exceptions, the habit is controlled easily; simply using the breaking-bit is all that is necessary, or working the mouth with it until the head is turned freely to the control of the bit. Pull, and repeat, against the hard side of the mouth, until the head will be turned, when pulled, freely. One of the simplest and most efficient, is the following, illustrated by cut. Provide your-

self with an ordinary steel bit, such as are ordinarily used for the overdraw-check : to this bit is attached two small straps, which are passed up over the head and through a small loop just above each ear, on the top of the bridle, extending back as ordinary check-reins, and connected with the saddle-hook. To make this check more effective, a small strap should pass from one ring of the bit to the other, across over the nose, and be just tight enough to keep the bit in place. With head well checked up, which this form of overdraw enables, the horse will drive, as de-



To prevent turning round.

sired, freely. The four-ring bit will sometimes work well in this habit. There are also forms of bit in use that get the desired purchase sideways upon the jaw, that work well.

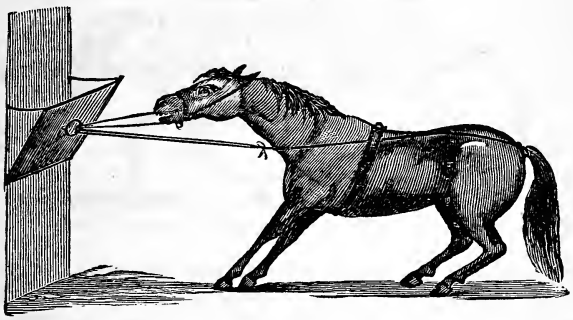
WILL NOT BACK.

Put on the harness with breaking-bit on bridle. Pass the reins back through the shaft-bearers. Get behind the horse, holding the reins firmly in the hands. Now give a sharp, raking pull back, and repeat slowly until the horse will back freely. If a colt is sulky and stubborn, and warms up much before you make your point, simply let him rest until cool, when you can usually make your point easily. The breaking-bit excels all other means for making a horse back. Be careful not to do too much, as the

mouth once made tender, and the horse made to back too freely, you do a serious mischief it is not easy to remedy. Taking a little extra time, and working carefully enables you to determine with more accuracy just how much to do. A colt that will act decidedly stubborn, if forced to yield while warm, will be likely next day to have the mouth too tender. The best way, in training the colt, is to work him up a little. Stop, even though the colt will not back. Next day the mouth will be sensitive, and will back easily and just as freely as desired, without abuse or danger of spoiling the mouth.

PULLING ON THE HALTER.

If a green colt is tied by the head to a post, and if the halter is a rope, one that draws tightly across the nose, — when pulled upon, the colt will be almost sure to pull back



Pulling on the halter.

the moment pressure is felt upon the head. Should the halter give way to the strain, the colt will try with great persistence to pull when so hitched afterwards. Try to pull a colt ahead before being broken to lead, and he will naturally run back, refusing to lead. This should indicate that a colt should not be hitched by the head with any kind of a halter, and given a chance to learn to pull. There is great danger, in the first place, of seriously injuring the colt by pulling, as he is likely to do, upon his head. Secondly, if the halter gives, the habit of halter-pulling is established. The colt

should never be hitched with a rough rope halter; for when pulled upon, it hurts, and this hurting frightens, and makes a horse pull the harder. If at first a rope was drawn across the stall, so as to come against the hind parts when the colt would try to go back, leaving the halter so long, when tied, that but little if any strain could come upon it before the rope across the stall would be felt, in a short time the horse would become accustomed to being hitched, and stand gently without trouble. By the following plan you can hitch a colt with entire safety, and cannot cause harm, though hitched by the head.

Provide yourself with a half-inch cord, of good hemp material if you can get it, about twenty-six feet in length. Double it, and put the centre under the tail, like a crupper; bring forward over the back, twisting both around each other two or three times; draw forward around the neck in front of the shoulders into a knot; now pass both cords forward through the ring in the manger or post; rein back, and tie into the halter, back of the jaw. If the horse now pulls, it is true he is tied by the head; but he disables and disconcerts himself by pulling directly against the hind parts, which not only disables him so that he cannot pull, but makes him on the instant go ahead. Be sure there is no possibility of any thing giving way or breaking; for if, when the horse pulls, which he may do at first with a sort of lunge, should he succeed in breaking loose, you are giving yourself away. This you must, at all hazards, guard against. If a colt, all you need to do is to hitch this way for a few times; if a bad halter-puller, you must do more. Provide yourself with a good bow-whip, and the instant the horse sets back to pull, put the whip into his nose for all you are worth until he comes ahead. You need not be afraid of hurting; so long as there is the least inclination to pull, punish keenly. No matter how well a horse behaves, the best course is to hitch so for a few days. Hitch first where the horse pulls the hardest. Of course you cannot do any thing with a whip while hitched in a stall, and must get as good substitute as you can. The main point is to force the horse out of the habit on the instant. Every precaution must be taken against breaking loose. Leave nothing to chance that will possibly cause this. Running the rope through a small ring, or a square-edged staple, or a

weak manger, or the rope being of bad material, and weak, — all these little matters must be looked at carefully, and every possible defect remedied before the trial is made. Again, see that you have a whip that is not too long and limber at the end: it should be rather short, of good buck-skin, that you can hit with within an inch of any point you desire. The intense keenness of the shock of pain you are able to produce at the first onset of pulling, is really the key of success here. One lesson will break ordinary horses of this habit; but if the horse is bad, and at all doubtful, be as thorough as you can, and hitch for a few days as above.

PULLING ON THE BRIDLE.

See that the head part of the bridle is made very strong; provide yourself with a small but strong cord, which may be doubled, or a strap, if sufficiently strong, will do. Have, if you can, a long but sharp snaffle-bit in the bridle. Pass the end of the rope or strap through the rein-ring of the bit, across back of the jaw, and attach to the off one of the bit; now, when the horse pulls, the bit is doubled across the jaw, which hurts intensely, and the horse will soon stand without attempting to pull; or you can pass the rope or strap through the near ring of the bit, up over the head, right up near the bridle, down on the opposite side, through the ring of the bit, and tie or buckle a little below the nose, or near the near ring, or knot both together at this point, and hitch both as with a halter.

BITING AND STRIKING.

THERE are many habits, which, to break up successfully, requires not only good judgment, but a cool determination. Biting and striking are among the most dangerous, for the least want of watchfulness will often encourage the horse to become aggressive. Hence the necessity of being able to see the intention at a glance, and disconcert the mind from its purpose before being fully developed. Biters and strikers are usually stallions, which are both cautious and courageous. They are of two classes: those that are merely irritable, and liable to bite when not watched, and those that cannot be approached or handled at all with safety. If the subject belongs to the first class, either method of subjection, and use of the war-bridle or double-draw, will give perfect control in a few minutes; if the second, and he is a stallion, you have a horse that is possibly of the most dangerous character, — one that, to make a single mistake in his management, would be fatal. The Hettrick horse of New York, referred to on page 17, was a remarkable subject of this character: though a gelding, he was so vicious that he would bite, strike, or kick at any one as soon as within his reach. It was entirely impossible, by the greatest delicacy of management, to touch him with the tip of the finger, without serious injury. The Hillman horse of Portland, referred to on page 18, was another remarkable case, — a stallion as cunning and treacherous as a vicious bull-dog. The Wilkins horse, handled by me as a special test trial before Mr. Robert Bonner, in his stable in New York City, was a striker and kicker of the most dangerous character. I was bound to win Mr. Bonner, and Mr. Bonner would have nothing short of the successful control of horses he knew all others failed to break. The Wilkins horse was selected as the worst known in the city. A very little abuse will spoil a certain

class of stallions very quickly, no matter how gentle previously; and, once started, they are most fearful. In approaching afterwards, speak sharply "get round," or any signal that will attract attention. Let the left hand be put on the shoulder (near side), glide it up the neck to the head, then down to the nose-piece of the halter. If there is an attempt to bite now, the hand is carried up before the head and held out of reach, while you can keep the head from you with greatest ease.

An old horse subject to this habit must be watched closely. So long as there is disposition to bite, the horse must not be regarded safe. Carelessness and timidity, especially if subjected to harsh treatment, may be regarded as the primary cause. I have known horses to become inveterate biters by being whipped once or twice.

A gentleman informed me lately that a horse he formerly owned became terribly vicious by being struck once with a whip in the stall. He was, up to that time, as gentle as any horse could be. Mr. Roberts's horse, a notice of which I give from the "Utica Herald," had been of a very docile character. A rough, drunken groom, who was employed to take care of him, by irritating and abusing the horse got him vicious. Mr. Roberts now took him in hand. One day, while in harness, the horse acted a little stubborn and vicious. Mr. Roberts struck him with the whip, when instantly the horse struck and bit him, knocking him senseless under his feet, and would have killed him if not driven off by two men, who happened at the time to be close by. He had run in his stall seven months, and would jump at any one with the ferocity of a desperate dog. As was stated, I took him in hand and made him gentle in less than twenty minutes, and he remained of a good character afterwards. If the horse is young and thoroughly treated, there will be but little trouble in reforming him. If old and bad, there is no hope of success, unless very carefully handled. If the horse is dangerous and bad, subject him to first, second, or third treatment. Either may do; but unless you are thorough, and make complete success, your effort will be likely to prove a failure. The main point is to work quick and thorough, making your point. If a stallion, you must always be on your guard. Appeal to the better nature, and win his confi-

dence as fully as you can by kind treatment. The war-bridle will have no permanent effect: you must go back to first principles, and make as telling an impression as you can; then follow up with simple means, an example of which I will refer to here. Years ago I bought a fine Gifford Morgan horse in Gowanda, N.Y. This horse was exceptionally clever, never offering to nip or bite; he was of a sorrel color, medium-sized, spirited, nine years old; the eyes were large, with a trace of brown color; the eyelids with white enough to show great temper; the forehead was wide, but not full. I trained this horse to drive without reins, to do which requires the severe use of the whip, and a great deal of it; yet, by careful treatment afterwards, I succeeded in training him without exciting his ill-will: it was a nice feat of training, but I did it successfully. In consequence of ill-health, I sold the horse with others in Bath, N.Y., to Fred Arned, who was a hotel-keeper, and liable at times to be influenced by liquor, who without any provocation whipped the horse in his stall. Happening near at the time, I warned the man he must not on any account repeat it; that to do so would make the horse so desperately vicious that he would be worthless to him; but to go at once and get some good apples and give them to him, thus winning him out of the excitement. The man was stubborn, and would not do it. In a few days the whipping was repeated; and the consequence was, afterwards, that horse would kill any one if he could who would go near him: he would jump for a man, and grate his teeth with desperation. Now Arned came to me in humility, saying the horse was truly ruined, and that he would do any thing I would require, if I would break the horse for him. It was with the greatest difficulty that I was able to get the horse out of his stall. A more desperate brute I never saw. His eyes were like coals of fire. I subjected rapidly to the first and second treatments, and succeeded in about thirty minutes in making him submit to me completely. He now seemed to know me, and submitted to my control as gently as ever. I led the horse to his stall, gave him apples, and talked to him, caressing him for fully twenty minutes, leaving him calm and gentle. I now employed a patient and careful man to take charge of the horse, directed him to get a peck of good apples, go into his

stall, occasionally give an apple, and treat him with the utmost kindness; at the same time I cautioned the owner on no account must he show himself to the horse or go near him until I permitted it, or was present. The horse continued now perfectly gentle, and in two weeks I thought it best to let him see Arned: the horse knew him instantly, and was immediately roused with anger, though the man stood at the door of the stall. The horse proved gentle to any one but his owner: he could never feel safe near him. Four years afterward, when I revisited that part of the country, I found the horse owned in Merchantsville, in the same county. The owner could take him out by the halter and play with him; his wife could drive and handle him with perfect safety as a family horse. I took him into the street, and played with him as of old, and he knew me perfectly. The owner told me he was all right in every way; but, said he, "Let him see a bald-headed man that is drunk, and he will kill him if he can. His whole nature will be excited with madness, yet he is perfectly gentle for others to handle or use." This horse was a cribber when I bought him, and was broken completely of this habit by the treatment given in this book.

There is one point I would call your attention to here. If a stallion of intelligence, and of some age, or even a grown colt that had been fooled with much, you must have your wits about you, when near him: no matter how pleasant he looks, you must never approach or go near him except when your eyes are upon his; and, if you have any nerve or will-power, show it all in your expression and actions. You must never, on any account, when near a stallion's head, turn your back to him. A horse of this character, that is quite manageable and considered safe, is even then liable to bite sharply, and do what you are not to expect from a horse that has not learned his power. If the horse is of a sulky, stubborn nature, heavy eyelids, and much white in the eye, and long from eyes to ears, he will not give any warning of his intention. He will stand sullen, with ears a little back, and eyes partly closed. The Hillman horse, referred to, was of this type. He would not make a move until within reach, and then he would spring upon a man like a bull-dog. A horse with large clear eyes, full forehead, and pointed ears will show

his intentions clearly, and will always warn you off with energy. This horse is really the least dangerous, as a barking dog makes most fuss in showing himself. When approaching a kicking, biting horse in the stall, don't show the least want of confidence in yourself, or exhibit the least indication of fear, while you should not be foolhardy. You must here, at all times, show decided nerve and courage. As you get near the stall, if possible, catch the horse's eye, and say, "Get around, sir," in a commanding manner: stand still, looking firmly into the eye; for he is measuring you, and now is the critical moment of his learning what you are. If you have will and nerve in you, concentrate it now in your looks and actions, as if you would crush him. Say, "Get around, sir," getting as near as you can, but not near enough to get kicked. If the horse moves around, and looks from you, you can, if careful, approach him safely. As you get to the end of the stall, with your eyes still upon him, make a quick, gliding spring to the shoulder, and without waiting for him to recover himself, run the hand up the neck to the head and down to the nose-piece of the halter or bit, and grasp it firmly. You are now safe. But as you value your life, be gentle and firm in your actions. When you wish to go out, pull the head after you as far as you can, and the instant you let go, glide out beyond reach. If the horse will not move, and looks at you sullenly, don't you chance going near him: there is too much danger. He would crush you before you could do any thing to prevent. I will not attempt to dictate the course you are to pursue to get to him: too much depends upon circumstances, and I do not wish to indulge in too many details. You must use your judgment, but take no chances you can with a little time and care avoid. Subject the horse to either or all modes of direct subjection. It is here that the value of skill is shown by quick, keen, smooth work, that leaves nothing undone, yet, without apparently doing much, brings about a complete change in the animal's character. Many and many a time, with a prejudiced class behind me, who would seem glad of my defeat, I have taken almost desperate chances, and barely succeeded. My advice is, do not be foolhardy. Let your courage be

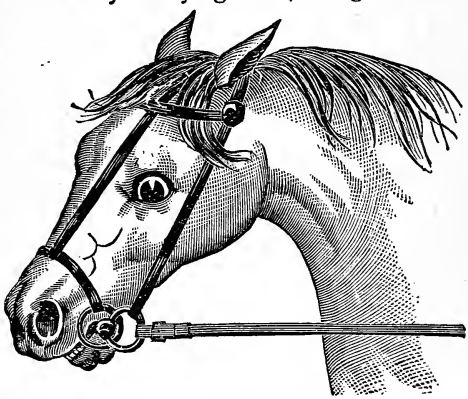
shown by the prudence of skill that brings sure success. No matter how well the horse acts, you must go around and handle him as if expecting every instant that he would go for you. The moment he submits to your control, treat him with the utmost kindness, and follow up this policy, but be ever ready to check sharply any inclination to viciousness. An old horse, that is in the habit of biting while standing in the street, should be muzzled. No matter how well he may act, do not trust him: it is the safest course.

JUMPING OUT OF SHAFTS WHEN UNHITCHED.

This is easily overcome. Put on the breaking-bit, and the instant the horse attempts to jump out, set him back sharply a few times. I frequently break horses of this habit, that are considered quite bad, in five or ten minutes, so that they will stand quietly to be hitched and unhitched as desired. If, however, the horse is decidedly bad, subject to second course of subjection, and control, by the bit, to stand as desired, then hitch and unhitch until successful. It is prudent, in bad cases, to repeat the lesson once or twice.

PULLING ON THE BIT.

This is sometimes a very annoying habit, though in most cases it is easily managed. If a horse has a dull, strong mouth, put in the breaking-bit, and give a sharp lesson with it. If the horse is strong and reckless, use it to drive a few days, and the mouth will be as light and gentle to control as you could desire.

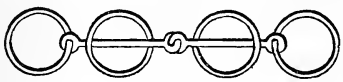


(No. 1.) Four-ring bit, adjusted.

If a nervous-tempered horse, of a naturally

gentle and moderate disposition, but when warmed up and sweaty pulls hard, try, first, as the simplest treatment, winding the bit with flannel or cloth. This will work nicely on some horses of fine organization; try next a rubber bit. If these fail, try next the four-ring bit, which has a peculiar effect in the control of this habit: it works finely on these nervous-tempered, excitable pullers.

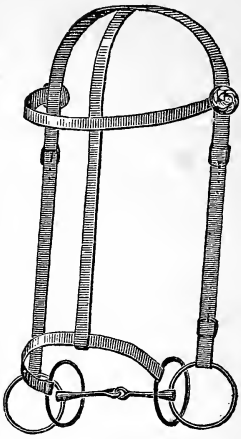
Take an ordinary snaffle-bit, or have a bit made by a smith, as in cut No. 2. Bend one of the rings into the form of a link, slip over it two rings about an inch and a half each in diameter, straighten back the ring to its original form, and you have a common snaffle-bit, with two small rings on the mouth-piece. Buckle into a common bridle. Get made next two straps,—one two feet in length and three-quarters of an inch wide, made like a hame-strap; the other about three feet in length, narrower and lighter. Run the short strap through both rings, and buckle double, in the form of a nose-piece, buckling just long enough to fit around the nose closely. Bring the long strap around the short one at the centre, pass up and through a little loop left in the bridle, between the ears and buckle, just short enough to let the nose-piece come straight across the nose. It will now be found, by standing in front of the horse, putting both thumbs through the rings, and giving a little jerk down and backwards, that the head will be thrown up and back easily. The strap across the nose will act as a fulcrum, when the rings on the end of the bit are pulled upon, the two inside rings slide towards the centre, forcing the joint upwards against the roof of the mouth, which causes so much pain, that the horse will not try to resist, after being pulled upon a few times. It overcomes pulling on one rein, or throwing the nose upon the breast. The effect of this bit on some horses is very great. It does not cut or make the mouth sore, and is valuable on horses that pull hard when warmed up.



(No. 2.)

This four-ring bit has been pushed by many parties, as a great feature for running away, kicking, &c., and claimed

to be patented. Instead of rings, straps of iron, fitted to slide on the bit and attach the strap to, were used and patented. These straps, pressing upon the cheeks, made them sore, and consequently objectionable; instead of a strap across the nose, which is indispensable to make the control of the bit effective, an overdraw check was used upon the straps, passing up from the bit over the head, a slide was placed, and by this means the fulcrum of purchase across the nose became weak and imperfect, because this slide, slipping back in the least, which it was liable to do, relaxed the draw across the nose, and thus destroyed the end to be attained by its compression against the roof of the mouth. I give it as it should be used; it is especially adapted for nervous-tempered pullers, and will seem to be just the thing on some horses for driving, while on others it may prove a failure.



Cut of bit, ready to be put on the horse.

CRIBBING.

I treat cribbing successfully as a habit. There may be constitutionally predisposing; causes but it is certain, whatever the pretensions of any one, I have never been given any proof of ability to break up the habit with medicine. Horses will not crib on any thing that is lower than the knees. Hence the treatment of tearing away the manger, and feeding on the floor, or in a basket. Sometimes sawing between the teeth will stop the habit, by making the teeth sore, but is not worthy of serious consideration.

There is but one practical plan of breaking up this habit, and the success of that will depend very much upon the skill displayed in making the adjustment.

The act of cribbing causes great contraction of the muscles of the neck; and the larynx, in consequence, is

forced down much beyond its natural position. This, then, is the key, through which we can reach and control the habit successfully. Have the throat-latch of the halter hang on a line with the top of the head to the junction of the neck with the head. Take a piece of strap (good firm leather), about five inches in length, and as wide as the throat-latch. Drive ten-ounce tacks in a row along the centre of this strap, half an inch apart. File the points sharp, and of equal length. Lay this strap on the inside of the throat-latch where it crosses the larynx, wind a piece of waxed thread around both, at the centre and ends of the short strap. Buckle the throat-latch just long enough, so that it will not touch the neck when eating or drinking, but will press sharply at the least attempt to crib. The result is, that at every attempt to crib, the tacks will stick into the neck, which will hurt and disconcert the horse from doing so.

The point of success will depend upon the perfection and care with which this is kept adjusted. If there is large muscular development on the neck, or thick-necked, the strap must be buckled shorter than when the neck is well cut out, as it is termed. Make the reproof severe at first. Then keep it so as to touch sharply when a repetition is attempted. If the throat-latch is not on a line with the top of the head, the tacks will rest against and cut the jaw, a little below the junction of the head with the neck. If this is kept on a few days or weeks, and then put on carelessly, or taken off, there is likely to be a failure; for if the horse finds he can crib once after this is put on, without hurting himself, he will be encouraged to repeat the effort, and will punish himself severely to do so. But if punished at first, and this kept where it will hurt keenly at the least attempt to crib, and left on a few weeks, you ought to be successful. It will not do to buckle a strap around the neck. The adjustment must be made to the strap of the halter, and the halter must fit nicely to the head. To do this, it must be made like a bridle, with brow-piece, so that it will not shift or move on the head. I have no trouble now with the habit. A common boy broke five in succession, a few years ago: he became careless and failed on the sixth. There is, once in a while,

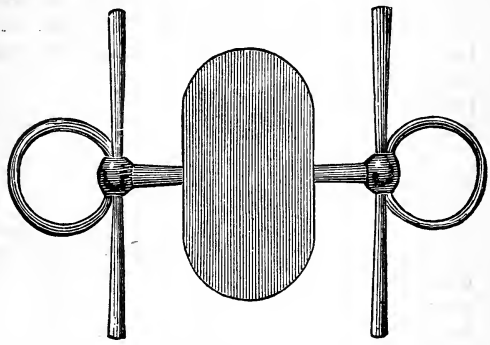
an old horse, of determined character, that will crib in defiance of this or any thing else. Such cases are, however, fortunately rare. A young, nervous-tempered horse will yield readily to this treatment; but few horses will attempt to crib while wearing a muzzle.

GETTING CAST IN STALL.

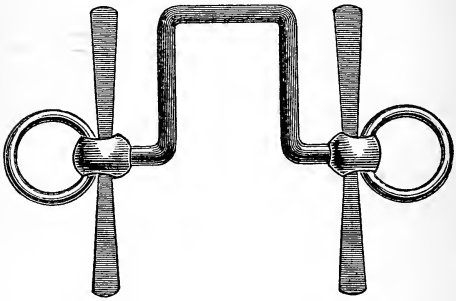
Drive a staple into a beam or the floor directly over the horse's head, as he stands in the stall, to which attach a strap or piece of small rope, of sufficient length to extend within fifteen inches of the floor. Before retiring for the night, attach the other end of the cord or strap to the top of the halter, making it just long enough to allow the horse to put his nose to the floor. Being now unable to get the top of his head to the floor, he is prevented from rolling. By giving the horse a large stall, he will rarely get cast, and this is really most practical.

PUTTING THE TONGUE OUT OF THE MOUTH.

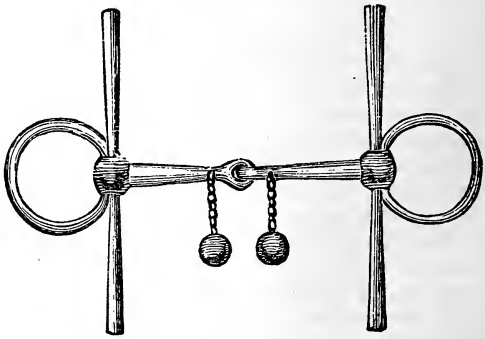
If the tongue is put out over the bit, the object is to prevent this, and the habit will cease. To do this, have fitted a piece of thin sheet-iron, about two and a half inches wide and five inches long, with the ends made rounding, and the edges filed smooth. Drill two small holes, about half an inch apart, near each edge, at the centre. Fasten it through these holes, on top of the bit, with a piece of small annealed wire. Shorten the cheek pieces of the bridle, so that the bit is drawn well up in the mouth. This piece of iron is now over the tongue, making it impossible for the horse to get the tongue over the bit. A simple and sure way of doing this is



to have the smith make a mouth-piece, as represented in the cut below, which is seen to be bent up, and comes so high in the mouth that the horse cannot get the tongue over: this works perfectly and is not inconvenient to drive with. It should be bent up at least 2¾ to 3 inches and come well out to the cheek-pieces and filed smoothly to prevent cutting or chafing the mouth. The tongue is sometimes, but not often, put out under the bit. The following treatment will work well:



Get three middling sized bullets, and hammer them out to about an inch and a half in length. Drill a little hole through the end of each. Tie one to the centre of the bit by a little piece of wire through the joint. Attach the others to the bit about an inch from the centre (one on each side), so as to play loosely. (See cut.)



When this bit is now in the mouth, these extra arrangements will so disconcert the horse that in his struggles to get them out of the way, he will forget to put the tongue out. The next best way is to buckle a strap around the nose so that the mouth cannot be opened. This, of course, prevents the tongue being put out; and, kept in a few days successfully, the habit of doing so will be completely broken up.

PAWING IN THE STALL.

Get a piece of trace-chain, about ten inches in length; run a short strap through one of the end links, and buckle it around the foot above the fetlock; or a piece of light chain can be fastened to a small block, and attached to the foot in the same manner. When the horse attempts to paw, the clog or chain rattles against th efoot, and prevents a repetition of the practice; or muffle the foot with a double thickness of blanket, the horse will not paw, and if he does will not make a noise.

KICKING THE STALL.

The same treatment used for preventing pawing may be used; or a piece of plank may be attached across the stall over the hips about an inch higher than the hips. At each effort to kick now, the hind part will strike this plank, and prevent ability to do so. If the kicking is with one foot against the side of stall, attach some brush to the side of the stall, or hang it down loosely over the part kicked at.

If you have a valuable horse subject to this habit, give him a large stall, or have fitted a clog, with a strap or chain to it, which attach to the leg with a strap buckled around it.

KICKING COWS.

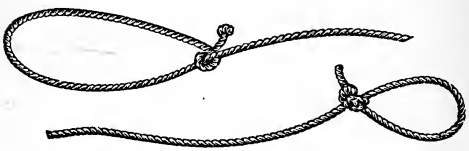
Put on the war-bridle (large loop) around the neck, and pull a few times, right and left; then attempt to milk. At the least resistance, punish sharply, repeating as may be necessary until the cow learns to stand quietly, and becomes afraid to kick.

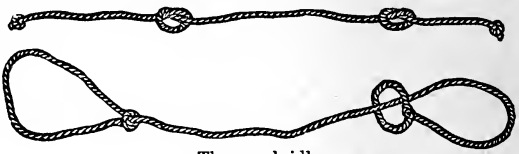
Sometimes the teats are sore, and the pain caused by milking is very severe.

Take Gonlard's extract 2 oz., sulphate zinc 2 oz., lard 2 oz., and rub upon the parts a few times. This is a favorite remedy among dairymen for sore teats, cake in the bag, &c. This prescription I know to have been sold for fifteen dollars, and is prized by dairymen in Northern New York, where the medicine is sold as a specialty for their use. One lesson will usually break a cow or heifer of kicking. Make your point thorough when you try at all, and you will succeed easily.

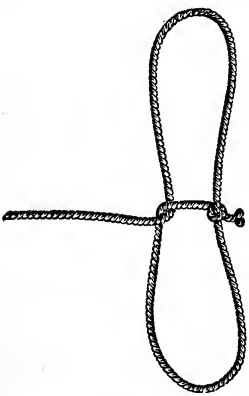
THE WAR-BRIDLE.—HOW TO MAKE IT.

First get a cord of the very best hemp or flax, made in the very best manner, twisted hard, about three-eighths to half an inch in diameter, and twenty-one feet in length. The smaller, if sufficiently strong so as not to break, the better. Tie each end into a single hard knot. I will, of course, here give but the simple form of making and using it. We use this in two ways under the simple head of war-bridle; one to get purchase sideways; the other to get power directly ahead. (See cuts.) To make the large loop form, make a tie about twenty inches from the end, more or less, according to the size of the neck to be put around. Pass the end around the neck upon which it is to be used, about twelve to fifteen inches from the head, and have the tie last made come just short enough that when the end knot is passed through it and drawn tight it will form a loop that will fit around this part of the neck. Now pass the left hand back between the neck and cord, catch the part hanging down, pull it back towards





The war-bridle.



Large loop.

Small loop.

the mouth, and pass over the lower jaw, drawing tight enough to keep it in place. Catch the end of the cord now in your hand, and stand opposite the shoulder; give a sharp, quick pull and you will find you have great power upon the head. This form should only be used sideways. It is finely adapted for making a colt follow sideways; it is good on a stallion, as you have purchase in such a way that you can keep him from you; it is very useful for many purposes; it will break a cow of kicking, while milking, in a few minutes. Second form: make a tie about ten or eleven inches from the head. Pass the end knot through it, and draw moderately tight: you want the loop in this form just large enough to pass over the lower jaw easily; it should not be at all tight. Now pass the other end over the neck, and down through this loop around the jaw, draw down, bring the part over the neck up to the ears: now stand in front of the head, a little sideways, about six or eight feet away, and give a quick but strong pull towards you, and you will get a wonderful power upon the head. When this simple means is used skilfully, its effect is wonderful. There is a great sleight in using it: indeed, though I have used it twenty years, I feel as if I had just learned how to use it properly. I modify its application in a great many ways, making it entirely a new thing, which has been shown carefully to the class. The war-bridle is adapted only for making a colt or horse lead. It does easily here what nothing else will; it is not adapted for controlling or breaking bad, vicious horses; its use properly comes under the head of minor or palliative treatment. The cord for the war-bridle I have is made expressly for my use: it is the only cord I could find that is sufficiently strong, smooth, and elastic; it will stand all the strain that a man can subject it to.

JUMPING OVER FENCES.

Most every dairyman knows that a cow or ox will not attempt to jump over a fence, pull it down, or run, while a piece of board is placed over the forehead, attached to the horns in front of the eyes; this simple means will usually work well upon cattle, but will not do upon a horse, because it gives too much freedom to see over the nose. As soon as you do this, he will be so disconcerted that he will not attempt to jump or meddle with a fence, and but rarely will

attempt to run in a pasture. This we accomplish perfectly by the means here given, which is cheap and easily adjusted.

If a horse or mule, put on a halter that fits well to the head, — a five-ring halter is best. Next find a piece of thin leather (an old boot-leg will do), about as long as the head, and from four to five inches wider than the head is at the eyes. Form it same as in cut, with a string attached at each corner. Attach the upper corners by the strings to the halter, where the brow-piece is attached to the cheek-piece. Tie the cords attached to the lower corners back of the jaw (being careful to leave freedom enough for the jaws to act when eating). Let the ends now pass over the throat-latch, and make fast. The horse is simply disabled from looking ahead. He can look sidewise and back, but cannot look ahead or over the nose forward, which will disconcert sufficiently to prevent the animal not only jumping, but throwing the fence down.

The Jumper before adjusting.

If an ox or cow, attach the upper corners to the horns, and pass the strings around the neck instead of over the throat-latch. I find that cows will not attempt to jump after this has been used two or three weeks. With horses and mules it must be used a much longer time, in some cases for months. The leather should be at least four inches wider than the head at the eyes, but five or more will be much better. This will bring the leather outside of the eyes when on, from two to three inches, and around the side of the face, to prevent working over the nose.

The Jumper adjusted.

THE BODY FETTERS.

Another good way is to buckle a surcingle around the body where the saddle of the harness rests; just back of each leg an inch and a half ring should be attached to the

surcingle, very strongly. From the rings, buckle an inch and a half strap around each arm, just short enough to prevent the legs being brought forward far enough to move freely, but not to enable jumping a fence. It works very nicely on some horses, but cannot be relied on in all cases.

THE SHORT HOBBLE.

A very good method of disabling a horse in a pasture, where he can be under special surveillance, is having two little straps that will buckle around the fore-legs above the fetlock. To these straps should be attached rings, and connecting with these rings a piece of chain, rope, or strap, of twelve to fifteen, or even more inches long; the shorter, the less liable to move: if very short, the horse will stand without moving; but left long enough, he will move sufficiently to eat, but not to run. A horse should not be left indefinitely with such a fetter on.

THE SIDE FETTERS.

In Europe a common method of hobbling horses is a piece of small chain, from two feet six inches to three feet in length, which has attached to each end a round, hollow ring, so hasped that it fits easily and securely around the feet above the hoof. These are put on the hind and fore feet of one side, compelling the horse, when he moves, to take both those legs up at a time. This is effectual; but in rough, stumpy fields it is not safe to confine the legs, and should be used with caution. The common poke is objectionable, because it spoils the mane, and is liable to excoriate the neck. If you do use this means, and especially on colts that run in back pastures, see by all means that the poke is well fitted, so that it will not chafe; and if you can, even at a little trouble and expense, wind the top part and half-way down the neck, on each side, with a piece of sheepskin, which will protect the mane and prevent soreness. I have seen horses have fearful sores upon the neck, from the carrying of a rough yoke. The jumper first given, all things considered, is the best in an open pasture: it gives the horse perfect freedom, and cannot injure in any way.

GENERAL ADVICE.

You should first take a general look at the horse you desire to treat, and get as good an understanding as you can of the disposition and character. Keep in mind next that the horse does not know what you want to do with him, and that he is, in his possible resistance, only acting out the natural impulses of his nature for protection. His impression is that you are an enemy. You must prove to him that you are a protector and friend. Imagine yourself in his place, and how you would act if hurt, abused, and frightened, and that you could not understand what was said to you. Do not, as many seem to do, jump at the conclusion that a horse must know what you say to him, and that if he does not obey you, you will make him do so, with the whip or something else. What would you think of a teacher, who, without trying to explain and simplify the lesson so that it could be comprehended, should punish and abuse for not doing what the child could not understand? Imagine the colt a child of another form. Now, the worst thing you can do is to get the child afraid and confused; for then, while depriving of conditions reasonably necessary to learn, the bad part of the nature is excited by fear and hostility, which, at the very start, must throw the mind and feelings all out of harmonious action to work well. When confused and excited, the colt, or grown horse, acts in the same way. Now, you must aim to guard as much as you can against this sort of confusion and excitement when you take a horse in hand. You must see plainly that a nervous, sensitive horse cannot be handled as roughly as, or bear the excitement that, a cold-blooded one will. A quick, nervous, excitable colt, for example, would be likely to be ruined by a few cuts of the whip, or doing any thing that would greatly excite the fears. This class *must* be handled delicately, firmly, and patiently.

To show the importance of keeping the subject free from excitement, and of touching just right, I will refer to a marked case during last season. A fine Knox colt, a stallion four years old, was owned by Mr. Stevens, a sharp horseman in Lancaster, N.H. This colt was wonderfully nervous, but a very fine, intelligent one. Wishing to take every possible care, regardless of expense, to have the colt broken well, Mr. Stevens employed a horse-breaker of good reputation, forty miles away from there, to break the colt for him. Before going to Lancaster, I visited the town where this horse-trainer lived. He told me about the trouble he had with the colt; that he had him there six weeks, and did every thing with him he could think of; that he was a devil, lunging and throwing himself, doing every thing mean. Citizens told me the man had abused the colt so much, they had to arrest him for cruelty. After keeping the colt six weeks, and doing all he could to break him, he was compelled to send him home to the owner, unbroken; and he said to me, "When you go to Lancaster you will get him to handle."

Some weeks after, when forming a class in Lancaster, Mr S. was pointed out to me: he kept away from me, an indifferent spectator. I was a little provoked at his indifference, and, walking up to him, urged him to give me his personal attention. He told me candidly that he had no confidence whatever in me; that he had seen all the horse-trainers, &c.; that he knew all he wanted to know about it; told me about his colt, and that he did not know what to do with him. I said to him, "Bring your colt here immediately, and I will tell you in two minutes just what I can do with him. I think I know what the trouble is, and I will put you in the way of breaking him without any trouble." The colt was brought forward for inspection. I found him a remarkably intelligent but sensitive fellow. I informed the owner on the instant that I could drive him gently in harness, in fifteen minutes, and that in an hour he would be as gentle as an old horse. He said he could not believe any human power could do it; that it was impossible. The man was fearfully incredulous and hostile: he believed me, he said, either a humbug of the worst kind, or wonderfully skilful; and he could not tell which. Now, there was no trouble at all in controlling

this colt, and driving him in the time named. He was driven in the street the next day, perfectly gentle. A week afterwards Mr. Stevens informed me that he was all right; and when he saw the colt driven gently, he laughed, saying he gave it up; that it seemed incredible that I could do it. The point of surprise to him, as to all others, is, that such horses will submit so easily and quickly. Had I excited this horse in the least, it would have been impossible for me to put him in shafts safely: instead, I held him by passive treatment until I got his confidence, and could reason with him, when he worked in smoothly and as easily as any colt I ever handled, driving him without breeching, and allowing the cross-piece to come against the quarters, &c. Now, a cold-blooded horse would bear a great deal of exciting force and work in all right, while any treatment that would irritate the other would precipitate the most reckless into resistance; hence the trouble.

A very nervous, *high-strung balker*, for example, a horse that will not stand, and if not given his own way is irritable and ugly, but otherwise a gentle worker. You must work upon such slowly and carefully; passive treatment, followed by double hitch and war-bridle: the main point is to exhibit all the power you can, avoiding excitement, and afterwards working gently, going over your ground slowly, constantly winning and flattering by rewards of apple, &c. This temperament, when trained in balking, or will not stand, sets and fixes very slowly in new habits: they are impulsive, inclined to the habit when irritated and excited. A condition of great success is guarding against this, and winning the better nature into harmony with your efforts: consequently you must go slowly, making what you want done habitual by practice and kindness, until you are confident the horse will continue obedient. If it is to stand after a sharp lesson, to show your power, go to the head, give apples or something else of which fond, stopping and starting, and rewarding carefully at each repetition, going farther and farther back, until you can get in and out of the wagon, and hold your point by the attention and confidence you have inspired. You will remember that hitting and jerking a delicate horse of this kind would undo very quickly a great deal of

good work. This class of disposition make willing, industrious workers, and must have a gentle hand and cool head to direct them. *Nervous, excitable runaways*, horses spoiled perhaps by the wagon striking the heels, or being upset, you must not fail to be very thorough with. Go over your primary treatment several times, if necessary, to make your foundation thorough, so that there is no fear of the shafts striking the quarters, the rein being put under the tail, &c.; that in hitching or unhitching, you can, without exciting any fear or resistance, run the shafts between the legs or against the belly and quarters. After you do it by this course of subjection, you must follow up on the winning plan. Fill your pockets with apples, and win the confidence of the horse completely, by rewarding with an occasional piece or two, but all this time industriously putting your shafts in every way against and around the legs, and drive without breeching. All this should not require over an hour to do in the most thorough manner. Next day, you must, as it were, partially repeat this lesson, until the confidence of the animal is fully restored. It is no feat to drive the average of these colts, no matter how excitable, in twenty to thirty minutes: a little kind treatment afterwards completely setting the character. I do it without trouble before my class, almost daily.

THE SULKY CHARACTERISTICS.

We have now the opposite extreme, which is equally exceptional. The nervous temper will always work in quickly and smoothly when treated skilfully and kindly; not so the bull-dog nature. When well stirred into a fight, they are the most disagreeable of all horses to handle; for they do not seem to be willing to do any thing without coercion. The point here is, if you find the horse sullenly reckless, and you have pushed all you think it is prudent to do, though the horse will seem as bad as ever, stop until he becomes completely cool and over the excitement: go to work now carefully, and the subject will usually work in as easily as any ordinary colt. A horse, for example, that will not back, and will throw himself down, no matter how stubborn he acts, will, when cool, work in without much difficulty. In some rare cases, the horse may warm up to as hard a resist-

ance as at first; but repetition will in all cases give success. You SIMPLY MUST TAKE MORE TIME, and hang on. There are many horses I make it a point, if possible, to get as sore and sensitive, muscularly, as I can, before I think of pushing for the point of breaking up the habit, when I know I can succeed. Whereas, to attempt to do so at first, without the advantage of increased sensibility, would be most annoying and difficult. There are horses of great endurance, not fleshy, and showing a cat-like wildness. They are bad; but I make them yield easily as soon as I make the points of perfect obedience. I set the character by kind, winning treatment. Trust nothing to chance you can provide against. Be careful and thorough: this is often more than half the secret of success. Try to see, at all times, that you must trust to and be guided by your head, and that as soon as you get mad, or lose control of yourself, you are throwing away the strongest points of your real strength. There is nothing made by this, — every thing to lose. So, if you are hasty-tempered and passionate, make up your mind at all hazards to keep master of yourself. This will be a great point accomplished. Do not talk much to a horse you are breaking, and do not be yelling at the top of your voice what you have to say. A good disciplinarian never says much, but is right to the point, and is exact in command. Continual talking will soon make a horse indifferent to command. Then, a horse can hear as well as you can, and there is no need of talking above an ordinary tone of voice. But be exact in requiring obedience to every command. Another point I would call your special attention to: you cannot be wholly guided and governed by arbitrary rules. The keen perception and broad comprehension of principles that can see what to do and how much to do to harmonize with the temperament, intelligence, and habit, are a quality that must be in the man, and are as necessary for success as the use of right principles. This quality must be, as it were, merged with nicety into the other; and it is here you exalt the study and performance of this duty to an exact science. You may ask what is the real key of my success. I know with great accuracy the disposition and character of a horse the instant brought before me, and I know just what treatment to apply with most success, and I know

how much must be done to make success sure. You must be, as it were, to be more than ordinarily successful, full of the subject: all its conditions and phases must be clear to the mind. Then you will not make mistakes. Never get discouraged by failure. Keep success always before your mind.

It was by defeats and failures I was led to study temperaments, and forced to adopt new principles of subjection, which I was in time able to combine into a system which covers every condition of difficulty. This knowledge I have tried faithfully to impart to you; and your success must depend in a great measure upon your prudence and the thoroughness of your efforts in applying them. It is only when you rise above the average scale of effort, that achievement is commendable and worthy of honor. You must put thought, tempered with patience and purpose, into your efforts. There must be sobriety and conviction of responsibility, that will make you see and feel your highest and truest interest to yourself demands rising above influences which lower and destroy self-respect and manhood. There is no enemy so dangerous as intemperance. The generosity and warm-heartedness of horsemen leads to this; and just so far as you yield yourself to it, you are planting the seeds of derangement and injury upon your nature from which you must experience keen misfortune.

TROTTING.

A good walking gait should be the foundation of the training. Continue this walking lesson until the colt is thoroughly gentle and submissive, and has learned to walk with energy. Now gradually let out on a moderate trot, holding up often, gradually letting out a little faster, as the strength and education will bear, but never so as to cause fatigue. Those muscles that are brought most into use are most largely developed, and bear in mind also that a colt has neither the strength or bottom of an old horse, to bear either much exertion, or to be pushed in his gait, and can not at once act the part of a fast going well trained horse.

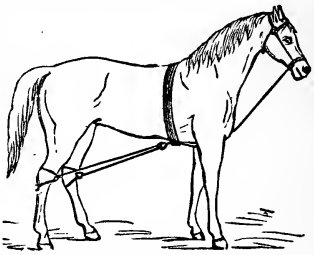
Let this jogging be continued, gradually as there is ambition and the road is smooth and descending; but let out only so fast, or to the point that the gait is held even and square; and at first should be pushed only a short distance, after which pull back to a walk and speak encouragingly. This is to be repeated, gradually going a little faster, but never to the point of exhaustion, always encouraging with a kind word or two after doing well. I would here caution against hitching the colt to a heavy wagon or sulky. The weight must be reduced as much as possible, and the better to facilitate the object, always let the bursts of speed be on a smooth, slightly descending piece of road. By this precaution you will remove all drag, and the horse is able to use all his powers to the best possible advantage.

This careful driving and gradually teaching the animal to push forward when commanded is to be continued, but however promising, the risk should not be hazarded of trotting a race, or a long distance, before the system is thoroughly matured and hardened to bear prolonged exertion. The gait of many fine trotters is ruined by too much haste and harshness in training. A horse has not his growth until five years old, and should not be put to severe work before six or seven years old. It is proved by experience that much greater age is necessary to attain great speed. Flora Temple made her fastest time of two minutes nineteen and three-quarter seconds, when she was fifteen years old, at Kalamazoo. Dexter is constantly increasing his speed, we are informed, by age and practice; and so it will be found with all the best trotters. They were grown into great speed by careful, persevering work, by which the system is highly developed, the muscles are strengthened and hardened, and useless foul matter that would obstruct the free action of the heart and lungs, and increase the weight, is removed.

Should the horse break when pushed in his gait, he should not be pulled up too suddenly, which would slacken his speed. Rather encourage him to go faster, and by gently and firmly pulling right and left bring him to the trot. The horse has now no disposition to resist control, and he must be taught to rely upon with confidence, as well as yield submission to the control and restraint of the bit.

TO FORCE ON THE TROT.

There are many promising steppers that will break and run, and will not come down to work again, when much excited; and unless there is power to prevent such a habit and force on the trot, the horse cannot be relied upon in a race, at perhaps the very instant pushing is necessary. There is not power to do this by the bit, and consequently horses that step freely in private become foolish and unreliable when urged in company with other horses. There is but one way of overcoming this trouble, and that is by the use of the following means, the conception of which has been original with myself, and brought to the notice of trainers by me for several years, and has proved in skillful hands a valuable adjunct, to the end of making flighty, nervous horses come down to fast, reliable going.



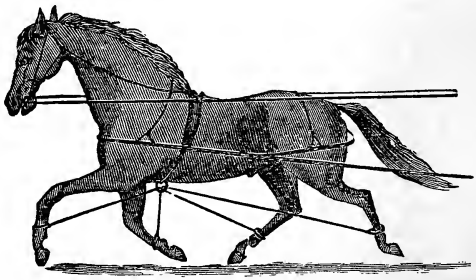
Cure for Breaking.

Have made first four straps long enough to go around the hind legs above the hocks, and from three quarters to an inch wide. Obtain next two D's or rings, in size to admit two each of these straps to be run through. Step in front of each hind leg and buckle these straps around the leg, one above and one below the gambrel, the ring or D in front, bringing the straps to an acute angle. Put on the head a light well-fitting halter. Attach a strap to this, which must be in part double to regulate the angle, and must be long enough to extend from the head to the back edge of the girt. On the end is to be attached a small, nice, easy running pulley, fitted to run a half-inch cord. The strap is to pass back from the halter, between the legs, over the belly-band, just back of which must come this pulley. Take next a piece of firm, hard cotton or hemp cord, from three-eighths to half an inch in size. Run it through the pulley to the center, and tie the ends into the D's or rings attached to the hind legs; the whole to be so regulated in length that the horse can walk or trot easily. This is similar to the kicking straps described on page 78.

(See cut.) One leg going forward to the degree that the opposite one goes back, brings no restraint on the cord or head, but the instant both feet go back as in the act of running, the cord is shortened, the head is drawn back, and the horse is taught that he is helpless. He soon learns this and becomes afraid to break, though subjected to any reasonable excitement. With this "rig" on, move the horse on a walk until accustomed to it, which will usually require but a very short time. Then let out on a moderate trot, and when thoroughly accustomed to it pushing to a fast gait. This must be repeated. In fact this arrangement should be kept on until the horse is made reliable. Should be driven and thoroughly practiced with other horses, and excitement made as if in a race. Of course all this requires ingenuity, patience and care.

This will work best on some horses by attaching to the collar, or around the neck. The restraint is simply more positive by this change.

One gentleman in Ohio, two years since, came one hundred and fifty miles to get this treatment of me, and in three months afterwards he informed me that he had since sold a mare for fifteen hundred dollars which he had bought for three hundred and seventy-five dollars. She would break when in the least excited, and could be made nothing of, though a fast stepper. He bought her, made the experiment, and in less than a month had her down fine, and could hold her under the whip regardless of yelling and the excitement of competing horses. This gentleman informed me he then had a horse that promised equally good results by this treatment.



To make a pacing horse trot, the cords are crossed from the hind leg on one side to the fore leg on the other. Can make a pacing horse trot in a few minutes.

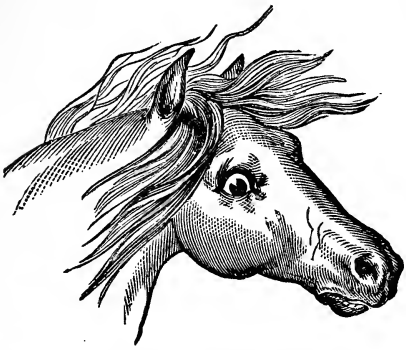
BREEDING.

Intelligent and Gentle.

One of the primary points of success is to start right, and in no respect is this more essential than in breeding. The law of like producing like is inexorable; consequently it is seen that to raise good horses, good horses must be bred from. Many farmers who are otherwise keenly alive to their interest, are singularly thoughtless and imprudent in this. If a mare is broken down and unfit for labor, no matter how coarse, badly formed, or what the evidence of constitutional unsoundness, she is reserved to breed from. Again the cheapest horse, no matter how coarse if sleek and fat, is selected and employed to breed from. The most ignorant farmer is particular to select the largest and soundest potatoes, the cleanest wheat and oats, for seed, etc. He has learned this is true economy. Yet there seems to be the most utter disregard of this law of prudence in the breeding of horses and farm stock in general. During my long experience before the public, I have endeavored to impress upon farmers, when I could, that this sort of economy is like paying a quarter for a chicken, and giving a dollar to have it taken home.

Dull and Treacherous.

It costs just as much to raise a poor, coarse blooded colt, as a fine blooded one. The cost of feeding and care is really the same, the only difference in cost being in that of the use of the horse. The first will possibly sell when five years old and trained to harness, for from a hundred to a hundred and fifty dollars. The other is worth from three hundred to a thousand, and possibly more. The first will scarcely sell for the cost of feeding and care. The second ensures a large profit, and this for a little additional first cost. And then the satisfaction of having fine valuable animals, that can go along if necessary, able to do any kind of work easily, and saleable for a larger price, is a source of no ordinary pleasure and encouragement, if from no other feeling than that of contributing so largely to increased economy and wealth. The fact is, breeding from poor, unsound horses is so much a detriment, that it would be a damage to any one to be compelled to breed from such stock, if given for the purpose.



Naturally Sensitive and Shy.

IN RUSSIA, PRUSSIA AND AUSTRIA,

the breeding of horses is controlled by the governments, each one having large breeding establishments, where those wishing, can procure sound stallions, devoid of all hereditary diseases. Each stallion is furnished with a certificate from the government. No other stallions are allowed to serve mares, under a penalty. The result is, that you will scarcely find an unsound horse, except by accidents, etc. Hereditary diseases, such as ophthalma, roaring, rupture, spavin, ringbone, curby hock, spongy feet, etc., scarcely known. It would be a source of undoubted economy and benefit to the breeders, if the legislature of each State would

enact such laws, by appointing competent inspectors to grant licenses to those free from blemish or hereditary diseases or unsoundness.

A few years' breeding, under such restrictions, would materially increase the value of horses in each State, and thus be a real blessing to owners and the country.

In selecting a stallion, look first carefully at his head. The nostrils should be large and well defined; eyes, that they are full, bright, and clear; good breadth between the eyes; the ears lively and rather short and tapering, and the head high between the ears; next, that the throat shows no enlargements of the glands, showing a disposition to be a whistler or roarer; next, the shoulder should be oblique, strong and high; then the fore leg, see that it is not tied in (as it is termed) under the knee, for such are liable to spring; then the feet should be of good size, sufficient depth to be strong in the quarters; spongy and flat feet should be rejected; next, the loin should be strong, the back should be well coupled, quarters broad from point to point of hips, and running nearly straight out to root of tail; stifle should stand low and well out; hocks broad and strong; no puffs or wind galls, as it indicates weakness. As a colt from such a horse at an early age, may show indications of blood spavin or thorough pin, look at the inside of the hock, an enlargement at the point of what is called a jack spavin or curb, enlargement on the back of the leg; next, at the foot, that there is no enlargement at the edge of the hoof, known as ringbone; weak eyes, or blindness, poll evil, fistula of withers, or in fact any cause of unsoundness should discard a stallion. I need not remind that the mare should be selected with the same care. Heaves, broken wind, and marked contraction of the feet should discard a horse, and I would by all means discard a bad tempered one. The horse should be in good health or condition. This implies that he has been subjected to moderate but regular exercise during the season. A horse that is driven hard and hurried from place to place, perhaps overheated and made to cover from two to four or five mares a day, should be regarded as unsafe, and the colt liable to lack vitality.

To be successful in breeding any particular variety of horses requires first decision as to the purpose for which

intended. To be particular requires first, intention as to purpose for which intended. If heavy draft horses, evenly trotting roadsters, or ponies are required, select both dam and sire with special reference to the kind of stock wanted. If the mare is light boned or defective, select a heavier boned horse, one that possesses the contrast of greater strength or better points in that respect. But to ensure much certainty of what you would have, the mare and horse should be as nearly the type desired as possible, though not related. I would be very particular about disposition and intelligence. The head should be broad between the eyes, muzzle small, short or middling short from eyes to ears. The smaller and rounder the eyes, the more positive will be the temper. (See cuts.) To have a horse sensitive, intelligent, courageous, and naturally docile, there must be large brain, the eye must be large, standing well out, and mild in expression.

Of course it is understood that BAD TREATMENT WILL SPOIL THE BEST TEMPERED HORSES, AND GOOD TREATMENT WILL MAKE GOOD SAFE ANIMALS OF THE WORST.

THE MARE.

The mare is said to go with foal eleven months or three hundred days; but it is not uncommon for mares to have fully developed foals in much less time, and in many instances mares have been known to go four or five weeks beyond this time. Time should be so arranged in putting mares, that the colts will come at a time when there is some grass, as the mare will do better not to be confined to dry feed. The virgin mare, or one that has not had a colt, for one season, must be put when she is found in season. The mare that has had a colt will be found in season, and should be put on the eighth or ninth day after foaling; some prefer the eighth, others the eleventh. Good judges claim that it is dangerous to go beyond the tenth, as the mare is apt to come off her heat soon after, and if allowed to go to a later period, the sucking of the colt is likely to reduce the mare too much to allow conception to take place, and thus a year's service of the breeder is lost.

After putting a mare, the days for trial are the ninth after service, the seventh after this, the fifth after this again.

Some commence again, commencing with the ninth day and follow up as before, making forty-two days. Twenty-one days being the period elapsing between a mare's going out of heat, and coming in again, making her periodical term thirty days. Twenty-one days is claimed to be sufficient to prove a mare.

The mare and colt should be well fed, and protected from storms. The theory of working a mare hard, and half starving the colt, is the poorest kind of economy, since the mare needs generous feed and rest, to renew her strength and make her milk, by which of course the colt is nourished and made to grow. When size and strength will indicate that it is time to wean, which is usually in five or six months, put the colt in a quiet pasture, away from the mare, where it should be closely looked after. A little oats, (better if bruised,) should be given daily.

The conclusion of careful breeders is, that it is much better for a colt to run in pasture, than to be confined in a stable. If the colt is intended for farm use, castration may be performed when six months old; if, however, the withers are light, it should be postponed until the head and neck fills up to the degree required, and this may require from one to two years, or even more. If the head is large and heavy, early castration is advisable. Colts should be generously fed, and protected from the inclemency of the weather in winter. They should be treated gently. May be broken early to harness, if treated gently and with care. This, however, is hazardous, as there is danger of overdriving young colts if they are driven at all. Many seem to take pride in trials to which they subject two or three year old colts. It is not what they can do, but what they ought to be required to do.

STABLING.

Pure air is not only an absolute essential in securing and retaining the perfect health of horses, but is the cheapest and most easily available. The stable should be so located and constructed as to enable this most perfectly, as well as afford the greatest convenience and comfort, thus ensuring health and economy. It should be built on a dry, airy location, facing the south, large enough to give ample

room, warm and well lighted, yet well ventilated. The stalls should be at least five feet wide for work horses, and if fine horses that are worked but little, they should be large enough to enable stepping around freely. If there is room, a box stall is the best, but it should not be close. The door, at least, should be made of slats, and a window above the head, so arranged that it can be thrown open to give light and ventilation. The door should be large, to preclude injury by striking the sides or hips against the posts, and there should be a reasonably large yard, which should be well fenced. If a manger and rack of the common form across the stall is used, I would suggest an improvement upon that in general use.

First. It should be so constructed that the horse cannot waste the feed while eating, yet should not be very high—the top about three and a half feet from the floor.

The rack, instead of sloping out over the head of the horse, should stand straight, or perpendicular, which will prevent hay seed and dust from falling upon the horse's head, and enable catching and pulling the hay more easily from the rack, and the back so inclined forward that the hay will all the time be in the horse's reach. The bottom should be open like the front, so that the dust can drop through to the floor.

The best form of manger I have seen, both for convenience, safety and health, is that so constructed that there is an alley in front of the head. The place for hay is a sort of box, on one side of which is a feed box, which should be large enough to prevent throwing the feed out while eating. The hitching ring should be on the off or farther side, to prevent the strap being caught by the foot. The manger should be about on a level with the shoulders. The nearer the horse is made to imitate his position when eating in the field the better. But this is not admissible in the construction of the manger, since the horse would waste the feed. This form of feeding box and manger is cleaner. There is not that temptation to give more hay at a time than the horse may need. The manger can be reached easily and safely; in feeding the hay is easily thrown upon the floor, where it can be easily shaken up and thrown fresh and palatable to the horse. It obviates the usual temptation of a receptacle under the manger, in

which to pack, during the day, a lot of poisonous bedding, and finally there is the best of ventilation, as the air can freely circulate in front of the manger. Every stable should have a sort of chimney, or opening at the top, to allow of the bad air to pass out freely. The windows should be so placed as to admit light enough that the ordinary work of the stable can be done without opening the doors, which should have shutters to enable darkening the stable if necessary, when flies are troublesome, or to permit sleep in the day time, which is often necessary. The walls, if any, in front should not be whitewashed, as is often done, as pure white would injure the eyes. The color should be made neutral by adding some brown or other coloring matter. A cellar stable, unless so constructed as to enable at all times the most perfect ventilation, is dangerous; yet one of the best stables I have seen was what would be termed a cellar stable, which was simply a series of box mangers running across the whole size of the building, with a passage-way running lengthwise through the centre, thus giving free access to each range from the end, from which was a run-way to the floor above; but there was a series of little open grates around the entire room near the ceiling, which gave perfect ventilation. A special point I would call attention to, viz.: not having, on any condion, a stall so constructed as to have a stone or brick wall on one side, or have the naked wall form one side of a stall. The temperature of one side is so much lower than that of the other, that derangement of the circulation must result, causing cold and injury that is often the cause of spoiling a valuable horse. If a stall is so located, line the wall with plank. The construction of farmer's stables is generally bad, the stalls being too narrow and short, the hay rack too high, and the top part standing too far forward over the head. In many cases they are but little better than a close dark box, without any adequate means of ventilation when the doors are closed, and if they are open there is usually so much draft of air as to cause cold, just as those occupying a close, warm room are made to feel keenly any sudden current of cold air that may be admitted into the room by too suddenly throwing the doors open while warm The sudden influx of cold air would check perspiration and close the pores of the skin, thereby endangering some acute form of inflammation.

Again, the stables are usually built over a cellar, which is perhaps half filled with water and manure that throws upward through the floor a deadly miasma that lays the foundation of disease. The rack is crammed with hay, the dust and dirt of which is forced against the horse's nose. The manger is half filled with filth and trash. The bedding, thoroughly impregnated with ammonia, is rolled under the manger in the morning, to saturate and poison the hay above it in the rack, or such other food as may be given the animal. The usual bad ventilation and high temperature of cellar stables make too great and violent a change in the temperature when taken in or out, and the consequence will be cold cough, with great disposition to attacks of pneumonia, or lung fever. Humanity and true self interest should prompt to looking to these errors being corrected in the construction of the horse's places of living, and as these ends can be attained without any extra expense worthy of consideration that is necessary for the construction of a poor one, it is a duty which is a really suicidal policy to neglect.

I would suggest, in conclusion, that the flooring of stalls or a stable should never be made of hard wood, such as oak, ash, chestnut, etc., as it wears smooth and endangers slipping and injury of the horse in getting up. The best wood for flooring is elm, spruce, hard pine, hemlock, or any wood that will wear rough and prevent slipping.

FEEDING.

Hay, corn fodder, oats and corn, constitute the principal food of horses in this country. Hay and oats in the Northern States, fodder and corn in the South. The food should be in quality and quantity to impart strength, vitality and elasticity, and this requires some discrimination and care, as the food should be harmonized both to the condition, and the severity of the labor to which the horse is subjected. As a rule, the stomach should not be distended with food when prolonged, energetic effort is desired, as the heart and lungs would thereby be much impeded in their action, and congestion and rupturing of or enlarging of the air cells of the lungs may result. This is to be especially guarded against in the feeding of hay. Greedy eaters can

and will gorge themselves by eating so much hay as to be unfit for active labor, and is usually shown to result in heaves or broken wind. Heaves are always found in the teamsters' or carters' stables, where there is no care in feeding. This disease is always found among horses of the above class, but never found among racing horses, from the fact that the utmost prudence and care is used in selecting the food, and feeding in smaller quantities, or in adapting the food more perfectly to the wants of the system.

It has been demonstrated beyond doubt that the reason horses improve so much in wind by eating prairie hay is, that it is so coarse that horses cannot eat it fast enough to overload the stomach. The quantity of hay should be carefully regulated, and never as much given as the horse will eat if at all voracious. The majority of owners pack a large rack full, allowing either liberty to eat too much, or making it unpalatable and unhealthy, by being breathed upon. From eight to ten pounds is about the average quantity for an ordinary roadster to be allowed in twenty-four hours, more or less, according to size, the kind of work, and the quantity of grain given. Dusty or mouldy hay should not be fed, as it is liable to produce various forms of disease.

All food should be clean, and in quality perfect. Hay is most perfect when it is about a year old. Horses would perhaps prefer earlier, but it is neither so wholesome nor so nutritious, and may purge. When it is a year old it should retain much of its green color and agreeable smell.* The blades of corn pulled and cured in the summer are unquestionably much better than hay. I should certainly prefer this kind of fodder to any kind of hay, for fine horses. It is strange that it is not prized more highly in the North.

Oats make more muscle than corn. Corn makes fat and warmth. Hence, the colder the weather, the more corn may be given, and the harder the work, the more oats. Oats should be a year old, heavy, dry and sweet. New oats will weigh from ten to fifteen per cent. more than old ones; but the difference is principally water. New oats are said to be more difficult to digest, and when in considerable

* NOTE 1.—In packing or stacking hay, salt should be slightly sprinkled through it so as to detroy insects. It also aids in preserving it bright, and makes it more palatable and healthy for the horse.

quantity are apt to cause flatulency and derangement of the stomach and bowels. The same may be said of corn. If not sound and dry, it may be regarded even much more dangerous than oats, and should not be fed. Doing so will be at the hazard of the consequences above mentioned.

The quantity of oats given daily may vary from eight to sixteen quarts. If the horse is large, and the work is severe, a little more may be given. Corn should be fed in the ear, and like oats must be regulated in quantity to the size and labor of the animal; from five to twelve good sized ears are a feed. I give a larger proportion of feed at night, and less in the morning and noon. There is ample time for digestion during the night. There is not during the day, if the labor is severe. Experience proves that some mildly cooling laxative food should be occasionally given. A bran mash, made by pouring boiling water on eight or ten quarts of wheat bran, covered over until cool and fed at night, from once to three times a week, is the finest and best.

Carrots are a good laxative and alterative before frost, but are too cold and constipating during cold weather. They may be fed in October, November and December, but in the Northern States not later. (I am governed by the judgment of one of the best veterinary surgeons in the United States, based upon careful and critical observation of effects on a large number of horses, on this point.) I feed Irish potatoes, from one to three quarts, with the usual quantity of grain, from two to three or four times a week, and would recommend their use. Think their value cannot be over-estimated. Feeding a small quantity of roots and giving bran mashes, keeps the bowels open and the system in a uniform, healthy condition. Without them constipation is probable, and this is one of the primary causes of diarrhœa, colic, or inflammation of the bowels. If it is desired to make a horse fat in a short time, feed corn meal and shorts, with cut straw, to which add a pint of cheap molasses. Nothing like this for recruiting and filling up a horse that is out of sorts or poor. If the horse eats too fast, put a few round stones in the feed box. He must now pick the food from among the stones, and thus he is compelled to eat slowly.

If the horse is exhausted, or when sufficient time cannot be allowed for him to eat and partially digest a full meal,

he may be greatly refreshed by a draught of warm gruel, or in summer, of cold water containing a small quantity of meal. To give some idea of the routine of feeding and watering when great care is necessary, I include the system of feeding and watering Mr. Bonner's famous trotting horse, Dexter:

"At six every morning, Dexter has all the water he wants, and two quarts of oats. After eating, he is 'walked' for half an hour or more, then cleaned off, and at nine has two quarts more of oats. If no drive is on the card for afternoon, he is given a half to three-quarters of an hour of gentle exercise. At one o'clock he has oats again, as before, limited to two quarts.

"From three to four, he is driven twelve to fifteen miles; after which he is cleaned off and rubbed thoroughly dry.

"He has a bare swallow of water on returning from the drive, but is allowed free access to his only feed of hay, of which he consumes from five to six pounds.

"If the drive has been a particularly sharp one, he is treated as soon as he gets in, to a quart or two of oat meal gruel; and when thoroughly cooled, has half a pail of water and three quarts of oats, with two quarts of bran moistened with hot water.

"Before any specially hard day's work or trial of his speed, his allowance of water is still more reduced."

WATERING.

If a large quantity of cold water is taken into the stomach while the system is agitated and sensitive, by the circulation being so increased as to open the pores of the skin freely, it is liable to so chill the stomach as to derange the circulation and close the pores of the skin, and thus excite some one of the common alimentary derangements of colic or inflammation of the bowels. Hard water, especially cold well water, is more liable to cause mischief in this way than soft water. Hard water will derange some horses, so much as to show an almost immediate effect of causing the hair to look rough or stare, the appetite deranged, if not indeed preceded by colic or inflammation of the bowels; also, horses that are raised and worked in the country, where the water is strongly impregnated with lime, are troubled a

good deal with intestinal calculi, *i. e.*, stone in the bladder. Hence soft water should be given, if convenient; and if well water, especially while warm, it should either have the chill taken off or be given very sparingly.

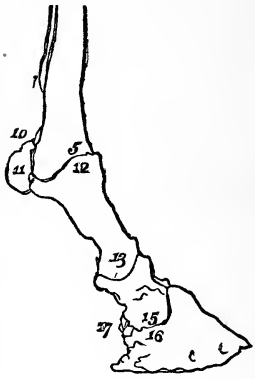
The best time to water is about half an hour before feeding. While driving, the rule should be little and often. None, or only a swallow or two, should be given at the close of a drive, until cool. If very warm, the horse should be walked moderately where there is not a current of air to strike him, from ten to thirty minutes, as may be found necessary. If, then, any danger is apprehended, the chill should be taken off the water if very cold and given sparingly a few swallows at a time. The common custom is to give about a half bucket of water. The safest course would be to give less and repeat. The rule should be, for ordinary use, to give small quantities often during the day, and the animal to pursue his journey or labor immediately after. If allowed to stand, the system may be chilled. The absorbents are closed, which is the common cause of Laminitis or Founder, although this disease may not develop itself until twelve or twenty-four hours afterwards, and any cause which will chill the system—either cold winds or cold water—while the animal is warm, will be almost sure to produce the above disease.

SHOEING HORSES.

TRIMMING THE HOOF. — FORM OF SHOE. — HOW TO CURE THE WORST CASES OF CONTRACTION. — NEW TREATMENT. — HOW TO CURE ANY CASE OF QUARTER-CRACK AND KEEP THE HORSE AT WORK. — HOW TO SHOE A STIFF OR SORE FOOTED HORSE, SO THAT HE WILL GO BETTER, &c.

THE damage and loss to the people of the country from bad shoeing and ignorance of the principles of keeping the feet in health is almost incalculable. But few good horses at maturity do not show marked contraction of the feet, with some one of the difficulties arising therefrom, of corns, thickening of the lateral cartilages, quarter-crack, thin weak heels, and other causes of soreness and lameness in the feet; all traceable to bad shoeing or ignorance of the nature and requirements of the foot in shoeing. It is the horses, too, that are naturally the best, and exceptionally valuable on account of their great docility and safety, that are the greatest sufferers from this cause.

(No. 2.)
Front view of the bones of the foot.

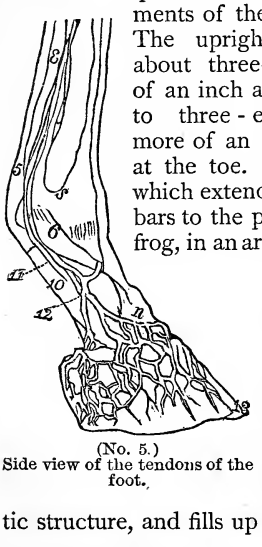


(No. 1.)
7 Metacarpal or shank bone.
11 Sesamoid bones.
12–13 The great pastern.
14–15 Little pastern or coronary bone.
16 Coffin bone.

In the horse's foot we have one of the most perfect pieces of mechanism imaginable, for strength and great mobility of action. The bones are united, bandaged, and supported in the most perfect manner by the tendinous structure, through and between which is a network of nerves and blood-vessels; over and surrounding this we have the hoof, a strong covering of compressible horn, which grows down, like the nails on the fingers, from the coronary ring under the hair, as fast as it would wear off on a grassing surface. This hoof, or horny covering, comprises three natural divisions, each having a peculiarity of structure adapted to the requirements of the location. The upright wall is about three-sixteenths of an inch at the heel, to three-eighths or more of an inch thick at the toe. The sole, which extends from the bars to the point of the frog, in an arched form, out to the upright wall and unites with it firmly, forms a strong elastic arch, that gives the most perfect support to the pedal bone. The part coming immediately under the centre and back part is called the frog, which is of a peculiar spongy, elastic structure, and fills up all the space between the heels: ex-

(No. 3.)
Back view of the bones of the foot.

(No. 4.)
A side view of some of the cartilages supporting the joints.
c Interosseous, &c.
ee Articular ligaments.
o Outer cartilage belonging to the coffin-bone.
p The inner cartilage belonging to the coffin-bone.



(No. 5.)
Side view of the tendons of the foot.

tending forward to the centre of the foot is a continuation of the upright shell, which is bent forward, and imperceptibly runs into the sole at the point of the frog, and is called the bars. The spaces between the bars and frog are called commisures, which are peculiarly sharp but strong arches, that commence abruptly at the heel, uniting the bars to the frog, and running out imperceptibly to the level of the sole at the point of the frog.

These clefts, with the soft, yielding character of the frog, give a singularly perfect means of compressible elasticity and security to the quarters; and with the soft, spongy frog between the heels, the best possible means of protecting the bones and tendons of the heel from being bruised or injured by concussion against the ground. The wall or upright part is in structure like a bundle of hairs or splinters of whalebone glued together; the outside surface being hard and bony, while the inside surface runs into a soft, yielding, but muscular structure that unites it to that of the coffin-bone. This is intended to be worn away at the bottom as it grows. If it is not worn off, it will extend down below the sole, preserving its own relation of thickness and form, and must be cut away with a knife or other means. It is to this wall of horn that the shoe is fitted and united. The sole and frog scale, and break off, in proportion to the increase of growth, and do not, when in health, require touching by the smith.

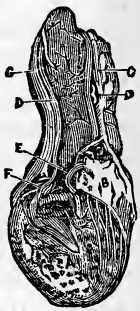
(No. 6.)
A front view of the tendons of the foot.

I have with me a manikin of the foot, showing all its parts plainly, — every bone, tendon, nerve, artery, vein, natural divisions of the hoof, &c., — which enables a better idea of its wonderful mechanism than can be shown by cuts, or any amount of labored verbal description. This I will cheerfully exhibit to the class, if desired, and explain the parts in detail to them. I have also models to illustrate the treatment for bringing the foot back to its natural form as desired, and thus of easily curing the worst condition of contraction of either

or both heels or of quarter-crack, difficulties that have baffled the best students of the foot heretofore to do successfully.

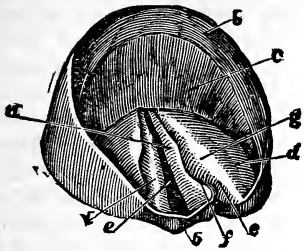
In the first place, we see that in trimming and fitting the foot for the shoe, we must be governed by the rule of cutting away only the superfluous horn of the upright shell, and only so much as brings the foot back to its natural shape and bearing, no attention whatever to be given to the frog and sole, and that the hoof must not be cut away enough to permit the possible pressure of the shoe upon the sole. The object to be attained in the form of the shoe is to carry out as nearly as we can by it the form of the wall, or this bearing surface, so as to preserve its freedom and action most naturally, and afford as nearly as possible the same relation of pressure of the sole and frog upon the ground, and in fitting it to the foot, that it will bear evenly and naturally upon the wall of the hoof all the way round, to prevent any possible bruising of the sole or heels. In nailing the shoe to the foot, first, the shoe must be nailed on strong enough to hold it to the hoof firmly as long as desired, special attention being given to prevent splitting or breaking the horn; second, not to bring any restraint upon the quarters, so as to preserve their freedom independent of the shoe, as the foot enlarges with growth; third, that the nails are not driven into the sensitive part of the foot, which would be a direct cause of injury and lameness. In cutting and trimming the hoof, be careful not to cut away too much, — just so much only as is necessary to bring the foot back to its natural shape and bearing, making an even level surface at least from a sixteenth to an eighth of an inch higher than the edge of the sole.

(No. 7.)
View of the foot with the skin and hoof removed showing the arteries and some veins of the foot.
1 Vein.
2 Plantar artery.
3 Branches to the coronary substance and laminæ.
4 Posterior division of plantar artery.



(No. 8.)
A view of the foot showing the veins.

Neither do I care what you use to cut away the horn with;



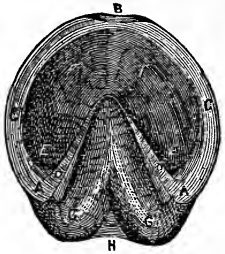
(No. 9.)

a The inside of the hoof as seen at the quarter. *b* The coronary ring. *c* The little horny plates lining the crust. *d* The same continued over the bars. *e e* The two concave surfaces of the inside of the horny frog. *f* That which externally is the cleft of the frog. *g* The bars. *h* The rounded part of the heels, belonging to the frog.

(No. 10.)

a a The frog.
b The sole.
c c The bars.
d d The crust.

that is not a matter of important consideration here. But cutting recklessly until there is no horn to nail to, or cutting away the frog, and scooping out the sole thin, or burning the shoe into the hoof, should not be permitted. First take a general look at the foot, and if thin-shelled, and does not grow horn very fast, be careful not to cut away too much at the heel. Level down the bearing surface from the heel to the toe, but not coming too near the level of the sole where it unites with the hoof. Do not meddle with the sole or frog. Let this scooping out of the sole, and trimming the frog, be a point you must, at all hazards, avoid.



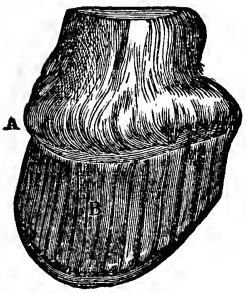
(No. 11.)

A view of sole and frog of foot, prepared for the shoe. This sole should not be touched.

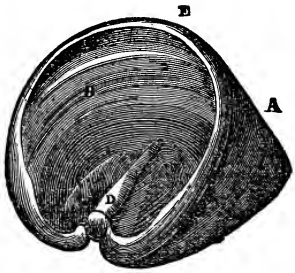
a The heel of the crust. *c c* The quarters of the crust. *d d* The bars as they should be left, with the full frog between them. *e e* The angles between the heel and bars, where corns appear. *f f* The concave surface of the toe.

The old horn preserves the moisture, and is necessary to shield the sole from being bruised, while the frog is indispensable for the protection of the heel, and cutting it away not only removes the natural means of protection to the delicate machinery of the coffin-joint and tendons above it, but permits such rapid

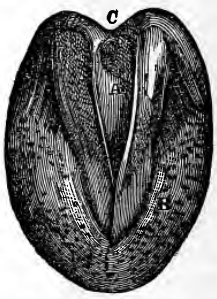
evaporation of its moisture that it in consequence soon becomes dry and hard, all so far as permitted causing direct injury to the foot. Simply level down the wall, and let the frog and sole alone. (See special reference to this in another part of this chapter.) Do not lower the bars any more than the level of the heel. Round off the sharp edge of the toe a little with a rasp, but not enough to destroy in the least the natural shape of the hoof. (See cut, shoe fitted.) You, in fact, aim to bring it back to its natural rounded form. The shoe should come round evenly, flush with the outer edge, but so much longer and wider than the heels, as you think the foot will grow in the time kept on, before resetting. If properly done, there can be but little or no chance for pressure upon the sole at the angles between the bar and heel. Pressure upon this part of the sole must be avoided, there is danger of bruising the sole, and breaking the blood-vessels beneath, and causing effu-



(No. 12.)
A view of the foot after the hoof had been stuffed off.



(No. 13.)
View of a healthy hoof.



(No. 14.)
View of the sole and frog of a hind-foot.

sion, which is to be guarded against. The usual cause of corns or bruising the sole here, is leaving shoes on so long that the growth of the foot draws the shoe forward until the

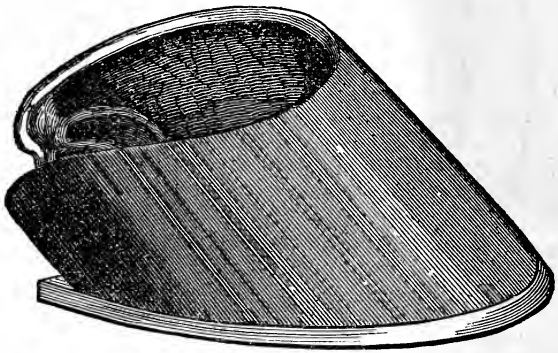
heel comes directly under the sole, or the heel has been cut down so near the level of the sole as to cause direct pressure upon it and bruise it, or the heel is worn down and broken, allowing gravel to become imbedded under the shoe, and to press into the sole at this point. A red spot, or corn, or general inflammation of the heel, is the result. The bearing all around should be left sufficiently high to prevent the shoe touching or resting upon the sole. As to the SHOE, I will confine myself to the general form most desirable. First, the shoe should in its form carry out as nearly as possible the natural function of the wall; secondly, that it is not so thick at heel that it will not raise the frog and sole so high as to prevent some contact with the ground; third, it will get sufficient hold upon the ground to prevent slipping. The first condition requires that the shoe should approximate exactly to the bearing surface of the wall, all the way round, from the heel to the toe, and be so accurately fitting that there is no appreciable space between. Care should be taken, especially at the heel, from the turn of the hoof back, that the bearing is cut or rasped so that it is perfectly flat. Too often the smith runs the buttress or rasp so recklessly, that this part is cut out cup like, the outside edge much the highest, so that looking from the outside the shoe may seem to fit nicely; the consequence would be, the rapid breaking down of this thin edge of horn, leaving the shoe loose, and permitting gravel to work in under the heel and press upon the sole. The point is, when the shoe is fitted, see that the bearing surface, of the heel especially, be perfectly level, if any thing a little convex, and have sufficient horn to support the hoof perfectly.

BAD FITTING OF SHOE.

Nine times out of ten, upon critical examination, the bearing surface of the shoe, when fitted, will be found largely concave at the heel, thereby causing a moderate but constant pressure of the quarters together.

Let the whole surface be flat and smooth, a good even fit, coming out flush with edge of the hoof all the way round. For light driving, and especially if the hoof is light, the shoe should be a thin, flat bar. If the roads are hard and stony, and the sole thin, the bar should be rather

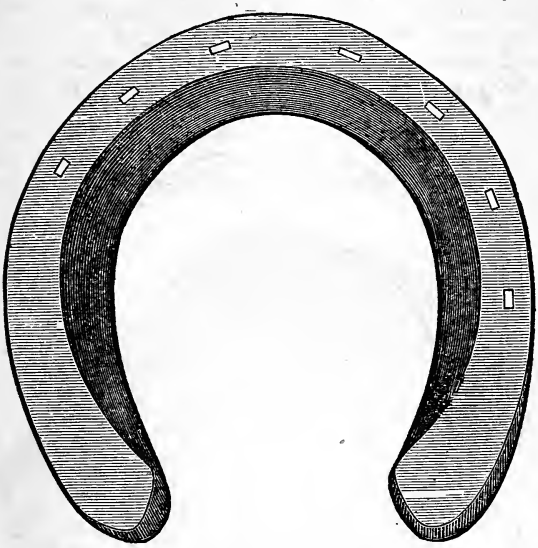
wide, so as to extend over the sole, but should be perfectly level. This will greatly protect the sole from injury. If, on the contrary, the horse works on sandy, gravelly roads, make the bar rather narrow, which will expose the sole and heel to constant, but moderate pressure upon the ground. Instead of a thick-heeled shoe, or spring-heel as it is called, when it is desired to raise the heels, corks should be used. A thick heel removes all possible pressure from the sole and frog; while heel-corks raise the heel all it is necessary, and their breaking into the ground serves to lessen the force of the concussion, and allows of occasional moderate pressure upon the



(No. 15.) A shoe fitted as it should be; comes out under the toe flush with the hoof, but represents being drawn under the heel a trifle too much.

frog and sole. All horses that are sore and stiffened should have the toe rounded. Two small corks may be placed on each side of the toe, on the under edge, and the heel raised pretty well by making the heel-corks high. In all cases of the horse being occasionally lame a little, at other times better, there is undoubted soreness of the heel or of the coffin-joint. The heel should be raised with a high-heeled shoe, and the toe rounded. If a colt, it is desired to drive and work a little. A thin, flat shoe, or a simple clip nailed around the toe, would be just the thing. No strictly arbitrary rule can be given, because you must adapt to the requirements of the case. Let the nail-holes

be where you can get the best hold and do the least damage. If the foot is broken and weak, I have the shoe fitted carefully, but omit punching the holes. Now put the shoe in place, and with a pencil mark where you can



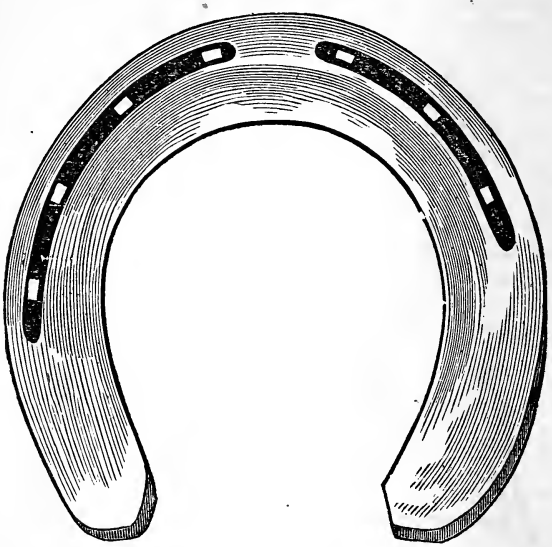
(No. 16.) The bearing surface as it should be made, perfectly level. It is not a matter of any account to seat or lower the inside edge as here represented. If the hoof is not trimmed down too close to the level of the sole, the surface may be left flat.

get the best nail-hold, nailing into the strong horn of the toe all you can. In thin shoes I allow no creases made. Make the holes large enough to let the head in deep and strong. For light shoes I prefer steel; and for summer use would not use corks.

NAILING AND RASPING.

For a light shoe and foot a No. 5 globe nail is heavy enough; and if you will drive two in the toe, you can drive eight nails, and not do any more harm to the hoof than you would ordinarily with six, and have less danger of losing the shoe. Any way, drive the nail deep enough

to get a good hold, which you can easily do, if you have left horn enough, and confine yourself to nailing on the outside and around the toe firmly. The quarters must be given all the freedom possible to prevent any external pressure on them. There should be no rasping under the clinches, and but a bare rounding-off of the sharp edge at the toe. The hoof should not be cut away to the shoe, because the shoe may be a little short, or sets well



(No. 17.) The ground surface showing the location of the nail-holes to enable giving all the freedom possible to the quarters, so that as the foot grows there is no compression upo ı the quarters.

back under the toe. Preserve the hoof in its natural shape and bearing, regardless of what the shoe may be. If necessary, smooth off the clinches a little, but omit any thing like an effort to give the surface a nice finish by rasping the whole or any part of the surface above the nail-holes, and the less below them the better. In the first place, the outside of the shell is by far the hardest, strongest, and toughest, and should be preserved and made

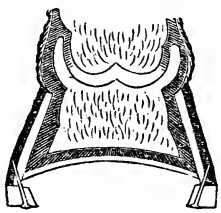
use of all you can. In the second place, rasping away the surface permits rapid evaporation of moisture, that causes a direct tendency to make it dry and hard, and of contracting it. Hence the advantage of covering the hoof and frog with a preparation that will prevent evaporation in the treatment of weak, contracted feet. The outside of the hoof should be let alone all you possibly can, doing nothing for your foolish idea of making a nice-looking foot as it leaves the shop. The smith will usually insist upon running the corner of the rasp under the clinches ; may tell you he cannot make a nice job. Pay no attention to this : simply have the clinches turned down strongly, touch the rough corners and edges, no more, with the file, and when done you will be glad you followed my advice. Shoes should be reset as often as every five or six weeks.

THE SHOE.—BEST FORM.

I will now say a few words about the shoe; and I would remind that I cannot here do more than suggest general principles, the condition of foot work, &c., requiring modification to suit each case. The nearer you keep the frog to holding the same relation of pressure to

(No. 18.)

View of a foot that has been cut away too much, bringing the shoe too near the sole, and the nails are driven too near the edge ; liable to split and break off, and spoil the hoof.

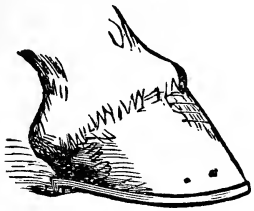


(No. 19.)

The bearing surface left so high that the shoe cannot rest upon the sole, and showing how the nails should be driven to get a good hold ; started in deep, but brought out low.

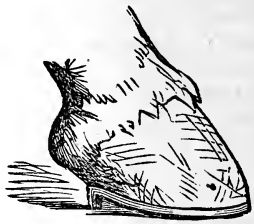
the ground that it had before shoeing, or before the foot has been meddled with by the shoer, the better. Second, the nearer you make the shoe on the ground surface the form of the rim of the foot before being cut away, the better. The toe, you notice, is always

worn rounding a little: consequently, to be exact, let the heels be drawn back rather thin, and the toe turned up a little in the order of a sled-crook, and concave, the middle part, and toe the outer edge cup-shape, touching the ground first. Such a shoe should be made of steel to be stiff enough, and will wear much slower than iron. Soft iron will wear out too quickly. Still better, in my judgment, is drawing down the heels of the shoe to a wedge-like shape, so that there is just room enough to run out to an edge at the point of the heel, which may be turned



(No. 20.)

A view of a foot with the shoe as it should be fitted.



(No. 21.)

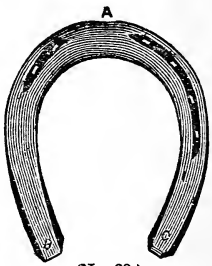
View of a foot with the shoe too short. The toe is not only cut away too much, but the heel is too short. Will soon spoil the foot.

up a little over the heel. This enables all that is required for preserving the foot, and gives the sole and frog natural contact with the ground. You should do something towards supplying the feet with moisture when standing much in the stall. The course I take during the day is to throw a little bedding under the fore-feet, upon which I throw water enough to wet it. At night remove this, and put in dry bedding, or you can mix some flaxseed meal with water, and stuff the feet.

THIN-HEELED SHOES.—EXPERIMENTS.

Some years ago a well-known veterinary surgeon called my attention to experiments made by a livery man, who took it into his head to shoe his horses with tips, or thin-heeled shoes. All alike were shod in this way. He said "many of them had sore and weak heels, and corns, and I thought he would spoil the horses by such shoeing, and driving them on

the hard-paved streets of the city; but, to my surprise, in a few weeks they got over the soreness, the feet became strong and healthy, and he had no trouble with corns or weak heels." I noticed, long ago, that when the shoe was worn thin, letting the frog and sole have contact with the ground, and especially in horses that were worked on sod that would give and press upon the heel, the feet were the most healthy and strong, and less disposed to contract. I have noted also that healthy feet that were shod with thick or high-heeled shoes, that raises the frog and sole from all contact with the ground, soon became dry; and if the foot was at all disposed to contract, there was a rapid drawing in or contracting of the heels. One of my horses had his shoes worn down quite thin: the feet were in good condition, though not over strong, having been foundered, and suffered from contraction, which I cured by the treatment I give for contraction under that head. One shoe was lost, and in the hurry of business I was unable to give my personal attention to his shoeing. A heavy, coarse shoe, with large heel and toe corks, was put on. The heel was raised at least three-fourths of an inch from the ground. I pointed out at once the defect, and said I intended to have the shoe replaced by a flat, thin shoe. But the pressure of business caused me to neglect the matter. In two weeks that foot was quite tender, dry, and hard, and very sensibly contracted; while the other, with its old thin shoe, was soft, large, and healthy. I put on an ordinary thin, flat shoe, with bearing surface at the heels, a little convex. I poulticed the foot two or three times to remove the inflammation and soften it; and in a short time the foot was all right, looking as healthy and strong as the other. This past season I had a very intelligent horseman in my class, who inquired as to the best way to shoe horses. I told him to keep the feet natural, bring the heel to the ground: if dry and hard, apply moisture, by tying wet rags around the foot and stuffing. Said he, "That is just what I do." "Then," said I, "your horses have good feet."

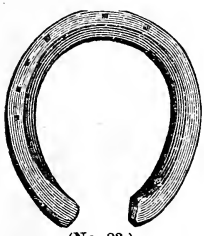


(No. 22.)
The ground surface of a common shoe, with location of nail-holes.

"Yes," said he: "I soon get the worst of feet all right; but it is an idea of my own." In my judgment the principal secret of the success of the Goodenough shoe is that the iron is so soft that it wears down rapidly, and brings the sole and frog to the ground, and to the rule of not touching the frog or sole when trimming the foot for the shoe.

HIGH HEELS.

But I would right here make an explanation: If there is any morbid inflammation in the cartilage of the coffin-joint or of the sheaths of the tendons passing down over the heel, especially if there is any tendency to coffin-joint lameness, bringing the heels to the ground will make the horse decidedly lame. In this case you must raise the heel high enough to prevent contact with ground, and the toe should be hammered down and made rounding like the toe of a shoe well worn. A member of my class who had been in one of the car-stables in New York, after advising thin-heeled shoes, said a man came to that stable while he was there, and talked that system into the president of the company; and he was employed to shoe all the horses on that plan. I asked him if he shod all alike; and he said, "Just alike." "Then," said I, "you had quite a number that became dead lame, while the others did better." He said that was so. I then explained that those having any tendency to coffin-joint lameness got badly lame; and that such, instead of a low heel, should have high heels and round toes to remove pressure from the frog, and aid the mobility of the foot. He had an idea, but no knowledge of principles back of it, and was consequently a dangerous authority to be guided by.

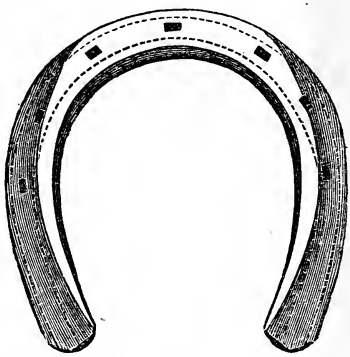


(No. 23.)
Bearing surface of a shoe, showing the location of the nail holes.

CONTRACTION.

The hoof is a shell of yielding horn; and when it becomes dry and hard, grows smaller, and presses upon the structure of the foot within, as a boot that becomes dry and crisped is drawn down tightly upon the foot. The result is inflam-

mation and injury, that ultimately destroys the action and vitality of the parts. I will not stop to designate the various causes of contraction, more than to say that badly-fitting, thick-heeled shoes, that raise the sole and frog from all possible pressure upon the ground, nailing so far back in the heels as to prevent spreading of the foot as it grows, badly-fitting shoes, and, I will add, standing in narrow stalls, on dry planks, all contribute more or less directly to this cause. Then, too, there is a frequent contraction only of one heel, or of one more than the other. All pedestrians are careful, as a primary condition of success, that the shoes fit easily and perfectly to the feet. The soles are broad and long, the heels low and wide, the uppers soft and easy, with no pressure upon the toes. Even the stockings are selected with great care. They must be free from seams or wrinkles. The foot is supported as nearly natural, and kept so, as possible. This is what we must aim to do in shoeing the horse's foot; and now we will come to the best way of doing this. The first step towards curing contraction is to remove the cause; secondly, the use of such means as will bring the quarters back to their natural form and condition most naturally and easily. I will first give the best palliative means, which does not require much care and skill to do. The second requires a nicer degree of skill, but will enable curing easily the worst cases of contraction of either or both heels. The same principle will enable curing with ease and certainty any case of quarter-crack. First, poultice the foot thoroughly, until soft, and will cut easily; next cut down the foot until all excessive growth is removed. If the sole is thick with old horn, cut it away



(No. 24.)

A convex shoe. The bearing surface is from a sixteenth to an eighth of an inch lower at the outer edge of the bearing surface where the outside of the heel rests. Should be fitted carefully.

with a sharp English shave that is ground sharp on both sides; cut down carefully between the bar and frog, especially well back towards the point of the heel; do not cut deep enough to bring blood, yet enough to let the quarter spread or give easily when pressed upon.

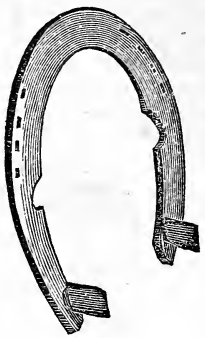
CONVEX SHOE FOR CURING CONTRACTION.

Next have fitted a thin-heeled, convex shoe. (See cut.) Fit it carefully, so that the quarters rest nicely on the convex surface, without touching the sole anywhere. The point is here not to cut the wall down too near the surface of the sole. The inner edge of the shoe settles into the horn, and forms a shoulder that prevents the quarter giving to the pressure of the body, as this will do when improperly fitted. Keep the feet stuffed with flaxseed-meal poultice, and tie a wet cloth around the coronet when in the stable. Put the horse to work, keep on such shoes, carefully fitted, and the feet kept soft: the horse will improve very rapidly, and all ordinary cases of contraction will be easily cured. This is, however, but palliative, compared with the following treatment, which enables the easy and certain cure of all cases of contraction, and quarter-crack, or splitting of the quarters.

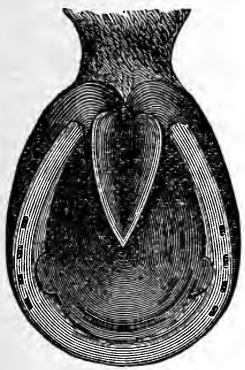
A SHOE THAT WILL ENABLE THE OPENING OF THE QUARTERS AS DESIRED.

Soften the foot, either by tying two or three thicknesses of blanket around the feet, and keeping them wet with cold water for twenty-four hours; or fill two little bags with bran, put each foot into a bag, tie a string loosely around the top and leg. Dip each foot in a bucket of water for a few minutes, and afterwards pour on water to keep wet, or stand the horse with the feet in a tub of moderately warm water until soft. Now cut down the feet to their natural shape. There is usually a large accumulation of horn at the heel: however small the foot may seem, cut away all the old superfluous horn, then cut down between the bars and frog as before described, until the quarters will give easily to pressure. Now accurately fit a shoe of a simple flat kind to the hoof. It must come out even and flush all the way round, and at the heels be a little wider and longer than the foot. Lay on the shoe

as intended to be nailed, and with a pencil make a mark on the outside, directly over the inside of the bar, at the point of the heel on each side. This done, accurately drill or punch two holes about three-sixteenths of an inch in diameter through the heels where the marks were made; and if you can, the holes should be on the bevel of the bar at this point, extending up and back at the point of the heel. By the way, particular care should be taken not to cut any thing from the side of the bars or inside wall of the heels. Fit two little pieces of good iron or steel, about three-fourths to seven-eighths of an inch long, by three-sixteenths thick, and about five-eighths of an inch wide. Cut down the end until it will fit the hole in the shoe, and, fitted properly, rivet it in thoroughly. You have now two clips at the inside exactly where you want them, and in general shape, with a little filing when the shoe is laid on, to come inside each heel, and extend well up to the top of the arch connecting the frog with the heel. Fit these carefully until they will rest perfectly up against the point of the heel, so as to give an easy and perfect pressure with the full breadth and length of the iron against the horn; but the end must not touch the soft part above. Weaken the shoe on each side at the turn of the foot, until, with sufficient pressure, it will bend there and at no other place. This is done by filing a notch in each side, as shown in cut. Put on in place, and nail down firmly. (See cuts of shoes and fitting.)

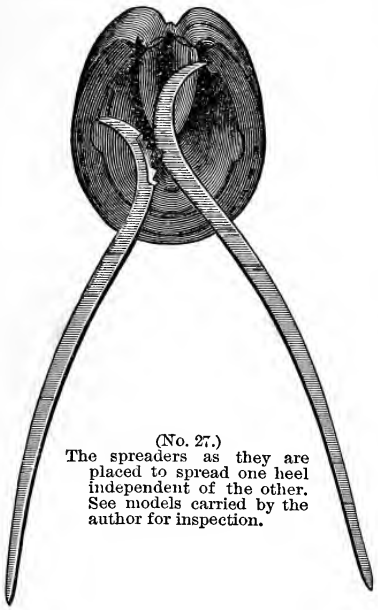


(No. 25.)
A view of a shoe when fitted to nail on. It does not give the exact idea of the size and shape of the flanges as they should be.



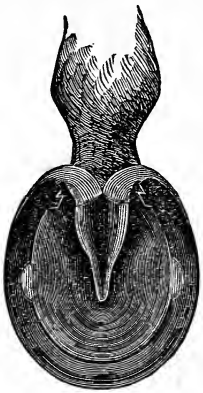
(No. 26.)
A badly contracted foot, with a shoe fitted ready to be spread.

It is seen the heels must now spread so far as the shoe is opened, and that you have the power to open the quarters as little or much as you desire, at will, with the spreaders. You can put the tongs between the heels, and spread them; but the difficulty will be the pressure coming equally on both sides; the side that is the weakest, or filed away the most, will do all the bending, thereby bringing pressure only no the quarter outside the part so bending outward. This will not do; for we must not only be exact in fitting this form of shoe in the first place, but we must be equally exact in our ability to open either or both quarters as little or much as we desire, with certainty. And this little point, small as it may seem, caused me a great deal of trouble to devise a means to do. The spreaders are the result of the effort, the idea of which the reader can easily catch from the engraving, and make the cure of contraction easy and sure. This illustration does not, however, give the right proportions, the part to the right from the fulcrum of bearing against each other to the part resting against the heel appearing too long. With this simple means of getting a strong lever-power upon each heel, outward, independent of the other, we can open the heels with great ease, as we desire. I would caution you not to spread too much when the shoe is first put on, which you will be liable to do because you can do it so easily, or at any time afterwards. Measure accu-



(No. 27.)
The spreaders as they are placed to spread one heel independent of the other. See models carried by the author for inspection.

rately the distance between the heels of the shoe. The quarter that is contracted most first open, but not over an eighth of an inch; then open the other about half that space. You cannot with safety spread the heels more than three-sixteenths of an inch at a time, and either quarter not over an eighth of an inch. If you spread the quarters the least too much you may cause violent inflammation, which must be arrested promptly. About an hour after the quarters are spread, examine the horse carefully; and if the foot is sore, with a hammer knock back the side bent too much, to remove the pressure. Next, put the foot in cold water, or tie a wet rag around it; the inflammation will subside very quickly. Every few days spread a little more, not over an eighth of an inch at a time, until the quarters are spread as far as you desire, and the foot is brought back to its natural shape. A shoe of the form described for the cure of contraction should not be thick nor heavy, just what is necessary for strength to support the strain upon it. The heels should not be over a quarter of an inch thick, to allow the frog having contact with the ground. If in the winter, and corks are necessary, fit the shoe first, corks, &c., as you desire; then drill the holes in place up near the corks. It is very easily done, and can be fitted to a hair, and no one can detect any unusual form of shoe, when on, unless attention is called to it. The principle of weakening the shoe on each side well forward in the toe, and turning the inside of the heels up in the form of clips, to rest against the inside of the bars at the heel, is well known. It is next to impossible to fit this form of the shoe to the foot. If in the least too large or small, it would be all out of shape. I tried it over and over again, and gave up in despair. With a tongs or screw, the pressure being equal on both quarters, there was usually a too violent strain of the quarter from the

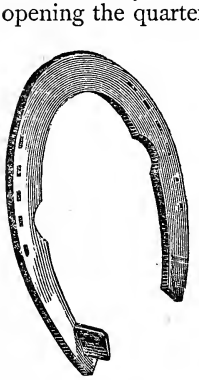


(No. 28.)
The foot with the heels opened by the expansion shoe.

toe back, while perhaps the opposite was not disturbed. It was an idea; but so crude and difficult to put in practice, that with all the care and patience I could use, I could not make it work as I desired, and it is almost sure to make the horse violently lame. The improvements I have made are, first, in weakening at the turn of the hoof, between the toe and heel, adjusting the clip with exactness after the shoe had been fitted, which enables, too, a full, broad, naturally fitting clip, just where it is desired to be; and lastly, a thin shoe, that will give the frog some pressure upon the ground; and finally, the form of the spreaders, which enables opening either side independent of the other, with the greatest exactness and certainty of result, gives us just what we want to cure contraction and quarter-cracks, or splitting of the quarters. When it is seen that many fine horses have such severe contraction of the feet as to virtually ruin them, and that there was no practical way known of giving easy or sure relief, we can realize the value of this simple contrivance for opening the quarters as we now can do.

QUARTER-CRACK. — HOW TO CURE ANY CASE.

Blind Billy burst his quarter severely. Previously, by opening the quarter, making a crease across at the edge of the hair, and keeping the foot soft, and stimulating its growth, I had no trouble in growing down the hoof sound. But in this case the ground was so hard, rough, and frosty, in connection with the great extent of the split, in spite of the utmost precaution and care, the horn would split back as fast as it grew down, until it was split almost to the ground. I knew the hoof split because too small for the parts within; that this pressure caused the hoof to burst; and so long as this continued, cure was practically impossible. Cutting down between the bar and frog, and weakening the quarter, so that it would spread, would not do it. I was driven to the resources of my ingenuity to overcome the difficulty. The usual remedy for the cure of



(No. 29.)
Cut of shoe for quarter-crack.

quarter-crack is to put on a bar-shoe, make a crease with a hot iron across at the edge of the hair, and keep the foot soft and grow it down. All this I had tried, and knew its value exactly. Opening the quarter, so as to let the hoof give to the pressure upon the edge of the horn was before entirely effective; but in this case, with the utmost care, it would not do. I was at my wit's end, when one night it occurred to me how to contrive the shoe, so as to spread the quarter out, and remove all possible pressure upon it. Next day I fitted one, as explained for contraction, fitting a clip or spur to the side of the quarter-crack. I nailed on the shoe firmly, and on the opposite side, well back to the heel, and spread the quarter out all I dared. I repeated this spreading two or three times; and, though the horse was driven and used as usual, and is the hardest horse on his feet of any I ever saw, — the shell being very thin, and he being blind, striking the ground very hard, — the foot grew down sound. Repeated trials with the same treatment since have proved to me that the remedy is complete. No matter how hard the horse is driven or used, the hoof will grow down without any inclination to split the new growth of horn, until the hoof is grown down sound. I cut away the edges of the horn where it is split, so that gravel or dirt cannot imbed between, and then spread the quarter outward, sometimes covering the crack with a little resin and tallow. I was so successful by this contrivance for opening and holding the quarter spread for the cure of quarter-crack, that I was led to try it upon one of my horses that had the heels drawn in badly. I fixed both sides of the shoe to be spread, and put on carefully. It worked perfectly. I was able to open the quarters as I pleased, and, in two months, opened the quarters fully an inch, making a complete change in the horse's action. Of course I could have opened the heels all I pleased at once; but this would not do, as violent inflammation would follow opening either quarter in the least too much at once. You must spread a little more every day or two, until the point desired is accomplished.

The primary cause of quarter-crack is, that the hoof is simply too small for the internal structure of the foot. The quarters always burst during dry, hot weather, or dry, freezing weather, when the ground is hard, causing severe strain and

concussion. The quarter, if drawn in a little, is then liable to split, and always on the inner side, because the shell is there thinnest and weakest. Simply open the heel on the side split between the bar and frog, cutting well down, but not to bring blood. Put on the form of shoe described, and spread the quarter enough to remove all possible pressure upon it. Crease with a hot iron across at the edge of the hair, and let the horse go to his work, observing to keep a good strong pressure upon the quarter by repeated spreading of the shoe, until the quarter is natural. To show the value and importance of this means of curing contraction and quarter-crack, I would refer to the fact that no work on shoeing or the care of the foot published gives any practical means of cure for contraction and quarter-crack. I read a report recently of a series of lectures delivered by Prof. Cressy of Amherst College, before the medical students and farmers in Burlington, Vt. The high standing of this gentleman, as a teacher of veterinary practice and a lecturer, makes him authority of the highest order. He described the nature and cause of contraction and quarter in well-chosen language. It is caused, he says, by want of moisture and pressure upon the frog. For the cure of contraction, he advised stuffing the feet with oil, meal, and pine-tar, moistening them with cold water; and, to prevent evaporation from the foot, to cover the hoof with an ointment made of equal parts of sweet oil, pine-tar, and mutton-tallow, and a little beeswax. For quarter-crack he gave no treatment. If the object is to remove pressure from the vascular structure of the foot, simple moisture and preventing evaporation is but the merest palliative treatment. It is not treatment by which the horse that is crippled can, in any practical sense, be cured; for, once the heels are turned in, they will, like the nail of the toe, keep inclined more and more to grow in unless mechanically controlled. Certainly this is no practical treatment for quarter-crack. The hoof can be preserved easily enough, as it grows down, from splitting, by keeping the animal in a stall; but the hoof grows down as it was before. The cause remains of the heel being drawn in, making the hoof too small; so that, as soon as the horse is put to work, and the hoof becomes dry, it is liable to burst at any time.

No amount of stuffing or moisture will remove pressure

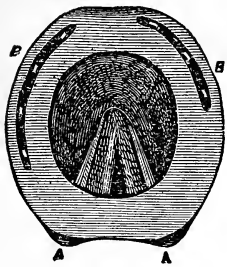
from the coronet and quarter after the feet are once sensibly contracted, and no care in fitting a shoe to make the bearing of the heels level, or bring pressure upon the frog by the use of a bar-shoe, will in a practical sense give relief. Mr. Bonner would, I think, smile at such treatment. I am aware a great deal of mischief has been done by parties, who, without any scientific knowledge, cut or saw recklessly into the heel between the bar and frog, and spread the quarters violently, thereby causing violent inflammation, an injury that would cause the animal great tortures and endanger tetanus. Where there is no regard for the use of the horse, the horn may be cut away to almost any extreme; and by allowing pressure of the frog and sole upon the soft ground the heels must grow wide with the new accumulation of horn, and a cure will be almost certain. But if we can do all this easily and safely, and preserve the hoof as well as retain the use of the horn, as we now can do, it is much better and safer treatment; but what is surprising to the writer is, that so high an authority as the gentleman referred to would not say something about the principles of giving direct relief to the pressure upon the internal structure of the foot now shown so necessary and valuable to prevent and cure contraction by mechanically removing the cause, as shown by the success of Mr. Bonner especially, whose success and skill in this field of study are beyond question. I really desire to benefit the farmers and horse-owners who honor me with their attention; and I will be glad to make these difficulties plainer to them by such explanations as I am able to give, personally, with aid of apparatus.

CORNS

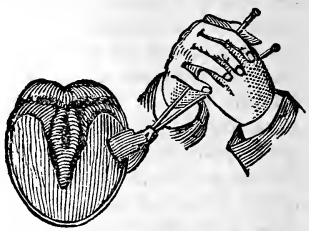
Appear at the angle of the inner heel: they are usually caused by the shoe being worn so long that it is drawn forward under the quarter, and presses upon the soft horn of the heel. This undue pressure bruises and breaks the blood-vessels, leaving a red spot. This bruise is the same as any other simple bruise of the sole. More or less inflammation may result, and, if allowed to go on, may cause suppuration.

The first and most important step towards a cure is to remove pressure from the part. The shoe must not be allowed to press upon it. If we raise the shoe from the

heel, or cut away the heel near the corn, to remove the pressure of the shoe from it, the increased pressure upon the horn near there breaks it down, and permits



(No. 30.)
Bar-shoe to enable removing pressure from the corn.



(No. 31.)
Testing for corn.

the shoe, as before, to rest upon the sensitive part, and the difficulty is made thereby worse. The only true way now to prevent pressure upon the part, is to use a bar-shoe, which will enable entire relief to the quarter by throwing pressure upon the frog, and thereby holding the shoe away from the heel.

(No. 32.)
New corn.

(No. 33.)
Situation and appearance of an old corn.

If there is much inflammation, poultice. If an ordinary red spot or corn, cut it out pretty well. Put on a little pitch and tallow hot, or a little butter of antimony. Spread a little tow over it to keep out gravel and dirt, and put on a bar-shoe, being careful there is no pressure upon the part.

INTERFERING.

Some horses travel so close that the least neglect of having the shoe well under the quarter, and the part nicely dressed down, would cause a bruising and cutting of the opposite ankle. The shoe should be so formed and fitted as to come well under the hoof. To do this well, that side of the shoe should be made rather straight,

with the web narrow, and the nail-holes well forward in the toe; at all events, there must be no nails driven into that part of the hoof that strikes, as the clinches will be likely to cut. If the toe *cork* is set well round, on the inside of the toe, and the foot is so pared, or the shoe is so formed that the bearing of the inside of the foot is raised somewhat, there will be a tendency in the ankle to be thrown out when borne upon. But the great object is to have the shoe fitted and filed smoothly, and set well under the part hitting, so that after the hoof is rasped off all it is prudent to do, and rounded down carefully, the shoe sets far enough under not to endanger its cutting, yet supports the hoof, and gives a natural bearing to the foot. The chief danger will be that some portion of this part of the shoe will be made to extend beyond the hoof, and the shoe be fitted and put on so roughly that it can scarcely be said to be fitted any smoother or better than is usually done, without regard to such a purpose. It is always best to keep the bearing natural by trimming the foot level, and making the shoe of an even thickness, but set it under and file smoothly. If this will not do, raise the inside a little. Driving young horses to sulky will often cause interfering; getting a horse in good condition will often overcome the difficulty. If the ankles are cut or sore, they should be protected with pads until well. If the owner values the animal highly, he should give such shoeing his personal attention.

(No. 34.)
A shoe for interfering.

(No. 35.)
Interfering pad.

(No. 36.)
A leather boot to protect the ankle.

WEAK HEELS.

Cutting down too close, and fitting the shoes roughly, so that the horn wears and breaks down the heels, will cause

them to be low and sensitive. Such feet should be simply levelled down with the rasp carefully, and the shoe fitted to touch every part of the bearing surface at the heels.

In some cases where there is but little horn at the heel to support the foot, the whole bottom of the foot seems to be flat and weak. This class of foot is usually so weak, and grows horn so slowly, that it is the cause of great annoyance. Two points are to be accomplished: First, growing all the horn we can, the want of which is the real cause of difficulty. Second, supporting the foot to prevent bruising or injury. It is clear, if the horn is not thick or strong enough, we must support it all we can; and, if there is not sufficient growth of horn, we must stimulate the growth of hoof all it is possible to do, but we must get a tough, healthy condition of hoof to do any lasting good. The real cause of the weakness is usually owing to the horse being over-heated a little, leaving a weak condition of the circulation. The hoof grows thin and brittle, and the horn gives out as soon as subjected to the strain of hard work or badly fitting shoes. Have made a nicely fitting, rather thin, flat bar-shoe, the bar all the way round wide; the part across under the frog to extend well forward so as to give a full, even support to the frog, almost covering it. (If the heels are spreading, which some weak feet of this kind do, nail well back in the quarter, or turn up little clips at each quarter to press gradually, but firmly, upon them.) The shoe should be fitted very carefully; yet no horn is to be cut away more than to level the wall. Next fit a piece of thin, hard leather, and put between the shoe and foot, and nail the shoe on carefully. If the whole bottom of the foot could be supported perfectly with rubber, it would be just the thing; but I never saw any thing of the kind, that, in a practical sense, could be depended upon. In the first place, nailing the shoe on tight enough to hold destroys its elasticity; second, it wears out too quickly. A cast should be taken of the bottom of the foot, so that it would be a perfect support; then a flat shoe nailed carefully over it, or have made an ordinary shoe with good wide bar, but not over thick; have next fitted to the inside, resting upon the inner edges of the shoe at the

heel and toe, and fastened to it firmly, a piece of thin steel or piece of saw-plate, the whole to form a flat, even surface. Fit this to the foot as nicely as you can, and nail it on firmly. Now take some oakum saturated with oil of tar, reduced with a little oil; the oil of tar itself being too stimulating. Stuff the oakum between the shoe and sole until there is an equal firm pressure upon the whole sole and frog. Remember, however, it is unnatural to have the frog and sole covered: thrush may result, but we choose the least evil for the time until we can grow horn. The best thing I have found to grow a good, healthy condition of horn, and keep the hoof soft and elastic, is the following —

LINIMENT FOR SORE, CONTRACTED, AND WEAK HEELS.

Venice turpentine, half pint; aqua ammonia, two ounces; salts of nitre, one ounce; benzoin, one ounce; alcohol, three ounces: apply to the edge of the hair, and all over the foot, two or three times a week. This will grow the hoof rapidly, and make good, healthy horn. A mild blister to the heel and coronet, repeating as you would an ordinary ointment for a month or two, will grow horn rapidly by exciting circulation to the coronary ring from which the horn is grown; but it should be followed up with the above liniment.

BREAKING DOWN OF THE SOLE.

If a horse is foundered, and inflammation is allowed to go on, the connection of the hoof and coffin-bone is liable to give way, and break the sole down. It is evident, if the sole is weak, and unable to support the weight of the body, there is but one alternative: it must be supported, and we must now study how to do this best. Have made a good strong, flat shoe, with bar across the centre of the sole well forward towards the toe. To do this, weld in a piece of flat iron, which should come a little lower than the surface of the shoe, according to the foot.

Fit on the shoe carefully, and nail on firmly; now fit a piece of leather under the sole; over this piece of iron, across the sole, pour in a solution of tar and tallow to cover the

sole; put in the leather over, and now comes the important point. Drive wedges, nicely fitted, between the iron and leather, all you dare, to cause a strong but even pressure upon the sole under the pedal or coffin-bone. What next? Keep down inflammation by poulticing; but keep an even, firm pressure upon the sole until inflammation subsides, and the sole remains in its natural position.

Of course success will depend largely upon the care and skill with which this is done. If there is not too much disorganization, you can make a reasonably good foot. See that no matter was retained under the sole or hoof. Cut away the horn, and make an outlet if necessary, and dress as any simple incised wound.

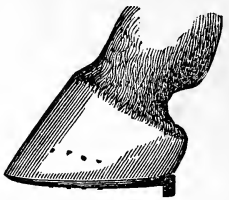
PRICKING OR DRIVING A NAIL INTO THE FOOT.

Be very cautious about letting the smith drive the nails too deep into the foot. Sometimes the shoe is too short; and to remedy the matter it is set back so far under the toe as to endanger driving the nails into the sensitive part of the foot. You should not on any account allow such a shoe put on, and the hoof cut down to it; but if you see the horse flinch sharply when the nail is driven, and it is at all deep, have it pulled out, and leave that hole without a nail. If after a few hours, or next day after being shod, the horse points, or is lame, there is cause for alarm. Put your hand gently upon the hoof, and see if you can detect any unusual heat; next, get a hammer or stone, and tap around over the nails carefully until there is a flinch, and you detect soreness and heat plainly; have the shoe at once removed, pulling out the nails carefully, cut down to where the nail strikes the quick, enough to make room for any matter that may have formed to escape; then poultice the foot with flaxseed meal until the inflammation is reduced, when a little tar, resin, or tallow should be put on the opening, filled up with a little tow, to prevent gravel or dirt getting in, and put the shoe on again.

SHOEING SORE AND LAME HORSES.

If the horse is simply stiff and sore, we will suppose the result of chronic founder, make a simple flat shoe. Raise the heels with heel corks, and round the toe something like

a sled-runner or worn off like an old shoe. (See cut.) You thereby aid mobility by helping the foot to turn easily on the ground, and will enable travelling much easier. If in winter, and you must have corks forward, have two set in at the back edge of the toe on each side, which will allow the same freedom of rolling to the foot. If the horse is OFF AND ON LAME, and seems to go worse when he loses his shoe, and is off and on lame, there is more or less inflammation in the heel or in the coffin-joint. In this case put on a high-heeled shoe with no toe cork, and in addition, round the toe. If there is a thickening or inflammation of the tendons on the back of the leg below the knee, run your fingers down the tendons; and if there is found slight heat and enlargement, or in the ankle, put on a high-heeled shoe. If a strain of the ankle, bandage lightly, and keep wet with a hot liniment of salt and vinegar; and, if you must drive the horse, bandage tightly while moving, keeping the leg wet, but loosen as soon as the stable is reached, to permit more freedom of circulation. If a good, healthy foot and no lameness, put on a simple flat shoe with the heel quite thin, but the bar rather wide: let the frog have some contact with the ground. If the horse is lame in the forefoot, — sometimes almost well, at other times quite lame, — poultice the foot, fit the shoe carefully, raise the heel with corks round the toe, nail on as lightly as you can, no heavy hammering, keep wet, and there will be marked improvement (see coffin-joint lameness), and most cases will get well; gradually lower the heel as you find the foot will bear; remember,



(No. 37.)
A shoe with a high heel and the toe rounding, without a toe cork, for a sore, stiffened horse, or one that has any soreness or inflammation in the coffin-joint. The heel must be raised from the ground and the toe rounded to aid mobility.

(No. 38.)
A clip or thin heeled shoe, to give the sole and frog contact with the ground. For contraction.

when you raise the heel, and throw increased strain upon the tendons on the forward side of the leg, you do it to remove pressure and strain from the tendons, and soreness at the heel or under the frog. When the foot is healthy, keep the bearing natural, — a simple level bearing, preserving the health, activity, and strength of the sole and frog by occasional possible contact with the ground. If the foot is contracting, by all means throw the heel to the ground, but keep the foot soft as you can, and use a convex shoe.

SHOEING COLTS.

You should not shoe colts until compelled to by the feet wearing down too much. About the first thing the farmer thinks necessary to do, when he wishes to break a colt, is to have big shoes put on. Remember, at best, shoes are unnatural, and a cause of injury to the feet; and the longer the feet will wear without shoes, the better. When you must put on shoes, let them be simple flat ones, or better, little more than *tips*, or *thin-heeled* shoes, that will permit about the same pressure, or nearly so, of the frog upon the ground, there was before being shod, and nail in the toe, and never to but one quarter. The common custom is to put on big, strong shoes, with high corks, and nail them on firmly. The frog is, in consequence, raised unnaturally high from the ground. It becomes dry and hard: as the foot grows, the quarters are held firmly to the shoe, and cannot spread, or act naturally. There is an unnatural restraint upon the quarters, that is increased as the foot grows. The feet soon become hard and contracted, and, before being fully grown, are weakened and suffering from some one of the common causes of malformation and injury that ruins the horse. Do not meddle with your colt's feet by putting shoes on them, so long as the feet remain strong and good, no matter how much you drive and use them.

TRIM COLTS' FEET.

You should look to the colt's feet, and have them trimmed down, if the hoof is growing long and out of shape. They are liable to split up; and, if not, the foot is likely to grow out of shape. Have them cut down level, and round the toe a little.

WHAT YOU SHOULD NOT PERMIT.

No rasping of the outside of the hoof, no large, stiff nails

driven into a hoof that is light and thin, or into any ordinary foot, as they split and shell the hoof, and spoil it.

DRIVING THE NAILS.

Let the nails be driven well forward in the toe, or outside the toe. See that the quarters are not bound so firmly to the shoe that they are not free to spread freely as the foot grows; for as the foot grows, it is just so far losing its original proportion with the shoe, because getting constantly wider and longer than it was when the shoe was put on.

Do not allow, on any condition, thick, heavy shoes on a light, thin-shelled foot, with square heels.

RASPING THE HOOF.

Do not allow any rasping, more than a little around the edge of the toe, but any splinters cut out. The less filing and rasping of the surface of the hoof, the better. Do not allow the feet to become dry and hard. Do not allow a favorite, valuable horse to stand in a narrow stall he cannot move in. Give room, and plenty of it.

It is but proper the writer should acknowledge his indebtedness to Mr. Robert Bonner of "The New York Ledger," and Dr. Bryden of Boston, for many valuable ideas on shoeing. Dr. Bryden is specially skilful in the treatment of the feet, and I am only doing him simple justice in recommending him to the confidence of those who are able to secure his services. Mr. Bonner is the most thorough student of the foot, and the principles of its care in shoeing, the writer has ever met. A good many in the country think the editor of the famous "Ledger," and equally famous stable of trotters, is admitted skilful because wealthy; while the fact is, he is undoubtedly the deepest and best thinker on the science of shoeing in this or any other country. No other man has studied the causes and principles of curing contraction so thoroughly, or the weight and form of construction of shoes to harmonize with action with such nicety. Observing with the greatest care the speed and action of each horse, with different forms of shoe, he knows how to remedy every defect with precision; and I am safe in saying that he has no peer as a keen student of the points and conditions of shoeing, and keeping the feet strong and healthy.

DISEASES AND THEIR TREATMENT.

I AIM here to give you, in the plainest and fewest words, an explanation of the causes and symptoms of diseases and the best treatment for cure. All the best chance prescriptions I have obtained during my experience, I also give here. To obtain reliable treatment for diseases, I employed one of the ablest and most successful veterinary surgeons in this country, at a large expense and nearly two years loss of time, to give me a private course of lectures on the treatment of diseases and lameness in horses, and thus give me a practical knowledge of all his best treatments for cure.

There are but three diseases to which horses are subject that are both common and dangerous; namely, Colic, Inflammation of the Lungs, and Founder. These three diseases constitute about nine-tenths of the causes of loss to the farmers. These diseases will be found carefully explained; and the plainest, simplest, and most reliable treatment for each, which I know to have been used with most success, and have used myself, is given for cure. Do not be confused and dependent upon some neighbor who presumes himself competent because he has a pet receipt or two. I give you treatment you can rely upon, if you follow it rigidly. It is next important to know what to do for cough, sore throat, or distemper, cuts, sprains, bruises, &c. Many a fine horse is ruined, and exposed to severe pain and injury for weeks and months, for want of a little common-sense treatment at the start. A cut on the leg, a simple cork off the hoof, neglected, results in a morbid action that leaves an incurable blemish and injury, which, treated at first properly, would not amount to any thing. Here you will get treatment to be depended upon for all such chance injuries, and all the common diseases, including spavins, ringbones,

taking off bunches, and all those common difficulties to which horses are subject, which makes this little book invaluable to horse-owners. The chapter on shoeing should be read with much care. I have tried to make the ideas plain and comprehensive for cure; and the advice, if followed, will save many a valuable horse from lameness and injury from shoeing. The importance of keeping the feet strong and healthy, the annoyance, damage, and loss so common from ignorance in shoeing, induce me to make a special effort to make what is written on the subject as clear and full in detail as I could. In the name of common-sense, as a matter of personal interest to you, see at least that your horses are not ruined, by preventing the possible roughness and ignorance of the shoer from a repetition of his too common faults.

Believe me in this, at least: I have, at great expense and trouble, done the very best I could to give you such instruction and treatment as I was able to do, which time and experience will, I am led to hope, make you appreciate more highly.

DR. WILLIAM SOMERVILLE'S CERTIFICATE.

"This is to certify that D. Magner, Esq., served under me nearly two years, during 1868 and 1869, as an apprentice, to learn and be instructed in the veterinary profession. I consider him well qualified to treat successfully all diseases in horses, and able to practise as a skilful and competent veterinary surgeon.

"WM. SOMERVILLE,
"*Veterinary Surgeon.*
"*A member of two Veterinary Colleges,*
"*and thirty-six years' practice.*

"Buffalo Horse Infirmary, 127 Erie St.,
"August 1st, 1869."

Respectfully,

D. MAGNER.

I would urge the necessity, at least of ordinary prudence, in preventing colds and sickness by guarding against unnecessary exposure, or mercilessly driving until in a profuse perspiration, and then leaving the horse in some cold, bleak place, without more, perhaps, than a poor blanket, and that

thrown on carelessly, while the driver is perhaps enjoying himself with his friends in some drinking saloon, toasting his shins while the poor animal stands shivering at the door. The effect of such bad treatment will not then have time to develope itself, but will be seen in a few hours, or at farthest on the following day. This is the common cause of acute laminitis (founder) and of pleuro-pneumonia (pleurisy). The three principal points in the health of a horse are feeding, air and exercise. In the first place, irregularity of feeding will certainly produce disease. (See article on feeding.) Ventilation—the stable should be neither too hot nor too cold. The animal will show the effect in a few days by coughing or having slight irritation of the mucous membrane of the throat.

A horse can take cold as easily by going out of a cold air into a hot stable, as he can by going from a hot stable into cold air, and *vice versa.* It is the sudden change of temperature which produces the change on the mucous coat of the larynx and throat.

The clothing of the horse in the stable should be neither too hot nor cold. But if kept too warm, he will be more likely to take cold when he goes out to exercise on a cold or chilly day. The stable should be well ventilated with pure air at all times, and all poisonous air and gases, particularly the ammonia, which is formed from the urine, should be allowed free egress from the stable, as the animal cannot be expected to keep in good health while compelled to inhale such malaria.

Let me tell you, one of the great points in keeping horses in good health and condition, is regular feeding and good care, being careful, after a sharp, hard drive, especially if there has been exposure to wet and cold, to blanket warmly —anticipate and look for a chill, or being off of food. If so, a little fever medicine and a warm bran mash should be given at once, and a serious attack of pneumonia may be thus averted. Men who talk and slash horses around recklessly, I have a low opinion of as horsemen. To keep horses doing well, even though worked hard, requires attention to little things. If the road is heavy or up-hill, and the horse shows fatigue or is warming up excessively, hold up and shove, if necessary, on good road and down grade, aiding and nursing along by watering often but not much at a time.

A very little driving without regard to this prudence will soon get even a good, hardy horse off his food, if not cause sickness, and then PROVIDENCE, or something else, is the supposed cause. Use all the care and prudence you can in guarding against and preventing sickness; it is your safest and best rule. I give the very best treatment in the following pages you can use with most success. The medicine is easily obtained and administered. Indeed there are single remedies in this book I would not be without for one thousand dollars.

SPASMODIC COLIC.

Colic is one of the most common as well as most dangerous diseases to which the horse is subject. There are two forms of this disease, namely, Spasmodic and Flatulent Colic.

The first is wholly of a spasmodic nature, and if not relieved, will, in severe cases, run into inflammation of the bowels, causing speedy death.

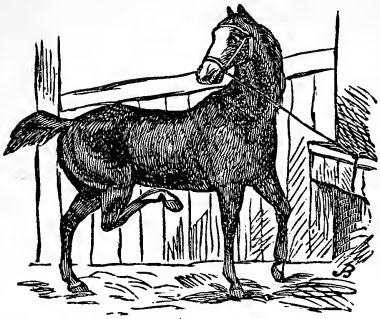
The second, while exhibiting the same general symptoms, shows marked enlargement of the belly, from generation of gas, which, if not checked and neutralized, results fatally by rupturing the diaphragm, causing suffocation and death.

The common causes of colic are, application of cold water to the body, drinking cold water when in a heated condition, costiveness, unwholesome food, etc.

Premonitory symptoms, are sudden. The animal paws violently, showing evidences of great distress, shifting his position almost constantly, and manifesting a desire to lie down. In a few minutes these symptoms disappear, and the horse is easy.* But the same uneasiness soon returns, increasing in severity until the animal cannot be kept upon his feet; the pulse is full, scarcely altered from its normal condition; a cold sweat breaks out over the body; temperature of legs and ears natural. As the disease advances the

* NOTE.—He may also act as if he wanted to make water, which he cannot do, there being a spasmodic contraction of the urethra. Hence the desire to give diuretic medicine. Straining in this way is usually prompted by a desire to relieve the muscles of the belly. No diuretic medicine should be given as the horse cannot pass urine until the attack of colic ceases, or it is taken from him with a catheter.

It is very seldom, even necessary to use a catheter. In fact, it is not necessary to pay any attention to this symptom. As soon as relieved of the colic, the horse will pass water freely.



First Stage of Spasmodic Colic.

symptoms become more severe, the animal at times throwing himself down with force, regardless of consequences, looks anxiously at the sides, sometimes snapping with the teeth at the sides, looking anxiously at the belly, and striking upward with the hind feet, showing almost the same symptoms as in inflammation of the bowels. There are, however, strongly marked characteristics peculiar to each. The better to point them out, I will tabulate them, by which the difference and peculiarities of each can be easily determined.

COLIC.	INFLAMMATION OF BOWELS.
Sudden in its attacks.	Gradual in its approach, with previous indications of fever.
Pulse, in the early stage of the disease, not much quickened or altered in its character.	*Pulse* much quickened, small, and often scarcely to be felt.
Legs and ears of a natural temperature.	Legs and ears cold.
Rubbing the belly gives relief.	Belly very tender and painful to the touch.
Relief obtained from motion.	Motion increases pain.
Intervals of rest.	Constant pain.
Strength scarcely affected.	Rapid and great weakness.

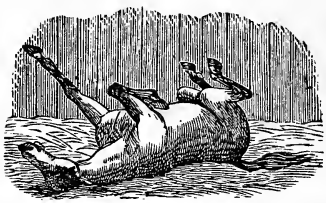
This disease being wholly of a spasmodic nature, it mus be counteracted by antispasmodic treatment; and laudanun. being the most powerful and reliable antispasmodic it is here indicated.

Treatment.—Give from two to three ounces of laudanum and a pint of raw linseed oil. If not better in an hour, give two ounces of laudanum and the same quantity of oil

If there is not relief in a reasonable time after the second dose is given, take from six to twelve quarts of blood from the neck vein, according to the size of the horse and the

severity of the attack. Always in bleeding make the orifice large, and extract the blood as quickly as possible. As

Second Stage of Spasmodic Colic.



Third Stage of Spasmodic Colic.

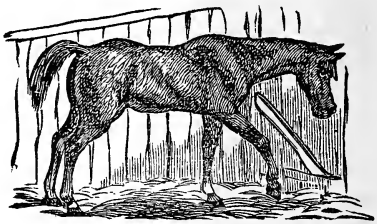
bleeding is the most powerful and reliable means of relaxing the system, it can be always relied upon in the cure of this form of colic. There will be no relapse after bleeding.

SPECIAL NOTICE. — To guard against confusion, and aid the reader all I can, I would say here that in my practice I use the remedy given for *Flatulent Colic* on next page; namely, peppermint, ether, and laudanum. It is peculiarly valuable to the non-professional man, because it will cure either or both, if given promptly. It is the only preparation experience proves is specific for Tympanitis, or Flatulent Colic, and is almost equally good for Spasmodic Colic. Hence its peculiar value to the farmer who cannot tell one kind of colic from the other, and, in the excitement of a horse taken suddenly sick, would be less likely to determine correctly. So I would advise, if you have a favorite horse that is subject to colic, to keep at least two doses of this medicine in your stable, ready for the emergency when it arises. In all cases of Spasmodic Colic, bleeding largely will give relief and prevent a relapse. But to bleed for Flatulent Colic would cause almost certain death. The exact symptoms of each. causes and treatment, are given under each head. Prof, Somerville said in his lecture on colic, that he had killed hundreds of horses before he learned to cure this form of colic with certainty, and the remedy referred to here was his favorite prescription. I saw in infirmary practice while studying, and during my experience since, a great many cases treated with this remedy with perfect success, and

it will be found invaluable. If the horse is not relieved in thirty to forty minutes, I repeat the dose, always with success. This form of colic is often fatal in two to three hours. I always keep for immediate use a dose or two of this medicine.

FLATULENT COLIC, (TYMPANITES.)

Symptoms same as spasmodic colic, with the difference of there being so great an accumulation of gas in the stomach and intestines that the belly is swelled. This disease will often prove fatal in from one to three hours. It is generally very sudden in its attack, often occurring while the animal is at work, particularly during warm weather or changeable weather from cold to heat; but is generally caused by indigestion, producing gases in the bowels or stomach.*



First Stage of Flatulent Colic.

If to terminate fatally it will become weaker and slower until it is almost imperceptible. If the animal is allowed to fall down suddenly while pressure of the gas upon the walls of the stomach is very great, there is probability of rupturing of the diaphragm, which would cause almost instant death from suffocation.

Treatment.—In the first place do not commit the error of bleeding for this form of colic, as it would be almost sure death. Second, keep up evaporation of the body as much as possible by sweating with blankets. What would be still better, if available, would be a hot bath. If you have any of the remedy comprising ether, ammonia, asafœtida, etc.,

*NOTE.—There are two locations for this disease, but in either it requires the same treatment, as it is generally produced by the same causes—the stomach, colon and cœcum. When in the stomach it will be distinguished by eructations or belchings of gas through the esophagus or gullet. If from the cœcum or colon, the horse is violently swollen along the belly, flanks and sides generally. Puise is rarely disturbed until the disease advances, when it will become quickened, running to its height quickly, and receding as rapidly, if fatal.

given for spasmodic colic, give it at once as directed. If this is not available, give a drench of the following:

Peppermint, 2 oz.; sulph. ether, 2 oz.; laudanum, 1 oz.; soft water, 1 pint.

Be particular to keep the composition in motion while administering; to be repeated in half or three-quarters of an hour if not better. There is great danger of this disease ending fatally by rupturing of the diaphragm, through the great distention of the intestines, and contrary to the regular rule of scientific veterinary surgeons' practice. To prevent these violent falls and rolling in the stall, to keep the animal on his feet as much as possible, and to avoid all irritation or action of the bowels, it would be advised that he be walked as slowly as possible, led by the head to prevent falling or rolling, until such time as the treatment has had the desired effect.*

PLEURISY—INFLAMMATION OF THE LUNGS—CONGESTION OF THE LUNGS.

All these diseases are only extremes or modifications of one disease. I will include their treatment under one head, first describing the symptoms peculiar to each.

[*All diseases of the chest take the scientific name "Pneumonia," and are called Pleurisy, or Pleuro-Pneumonia; Typhoid inflammation of the Lungs—Typhoid Pneumonia; Congestion of the Lungs, or Congestive Pneumonia; and lastly, a disease known as Dropsy of the Chest—(Hydrothorax)—which last is generally the result of the former disease. When the word Congestion is spoken of, it means in common phrase, that one or the other (right or left lobe) of the lungs, are so engorged with blood forced into them that they are either unable to receive or discharge any blood, become hard, and almost black in color. When in this stage the disease is called Congestion, and often terminates at this period in death.*]

* NOTE.—The ether disturbs the breathing, making the horse apparently distressed, breathes laboriously, which will pass off again in a few hours. I could give more of a variety of treatment for this form of colic, but all things considered, I think this is the safest and best, if not the most reliable for use by those not skilled in practice.

It is well to bear in mind also, that if the horse is small and the case not severe, less is to be given, while if very large and the attack severe, even more may be given.

The most common causes of lung fever, as it is termed, are, exposing the animal while warm to a cold wind, or becoming chilled from driving fast against a cold wind, washing with cold water immediately after exercise, changes from heat to cold, or from cold to heat, removing from a warm to a cold, or from a cold to a warm stable, or cold applied to the surface of a heated animal, by which the blood is driven from the skin and extremities to the internal organs, or any cause by which the circulation is obstructed and deranged, may excite any of these forms of inflammation and congestion.

When the pleuro—(a watery or fine membrane covering the external surface of the lungs, and lining membrane of the cavity of the chest)—is inflamed, the disease is called pleurisy.

When the inflammation is located in the lungs, it is called *pneumonia*, or inflammation of the lungs. When the action of the capillaries is greatly lessened from their being weakened, or the blood being so forced through them that they are obstructed and clogged, the difficulty is called *congestion* of the lungs.

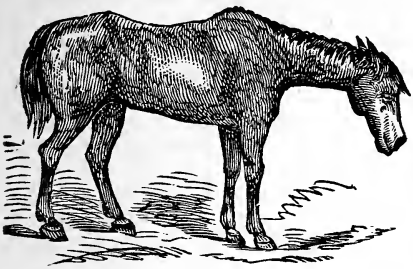
There cannot be inflammation of a part without there being more or less inflammation of the other parts surrounding, and there cannot be inflammation without congestion, as there is always more or less obstruction of the circulation where there is inflammation.

PLEURISY

may be sudden or gradual in its attack, the horse showing indisposition sometimes for days previous. The horse will be dull and heavy in action for a day or two, unwilling to lie down, pulse not much disturbed, or there is a chill, or slavering fit, which lasts from one to three hours, when fever sets in; breathing at flanks a little accelerated, countenance is anxious, the head is sometimes turned towards the side, does not lie down. As the disease advances the symptoms become more marked. The ears and legs become cold; the pulse, from being a little accelerated, grows quicker, hard and full; the head is hung forward, stands up persistently, breathing hurried, the membrane of the nose and eyes red. Turning the horse round, or hitting against the chest, back of the shoulder, will cause a kind of grunt.

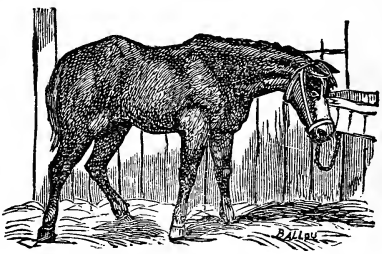
CONGESTION OF THE LUNGS

is first noticeable by the horse having a severe chill or shivering fit. He refuses his food, hangs his head between the fore legs or upon the manger, will not move or lie down, breathing quick and short, panting like. The nostrils are expanded, the head thrown forward; the countenance expresses pain and great prostration. (See cut.) The pulse is sometimes full and quick, but generally quick and weak, scarcely perceptible; the membrane of the nose and eyes bright red, tending to purple; ears and legs very cold; with a cold clammy sweat at the extremities.



The Commencement of Inflammation of the Lungs.

In this case the inability of the horse to take air into the lungs causes great and rapid prostration, (and will often, from extreme pain, lie down and get up, resembling colic, but the coldness of extremities, prostration and condition of pulse will, if carefully examined, enable an understanding of the real cause,) a choking noise sometimes coming from the throat. In some cases a little blood may be thrown from one or both nostrils. Extreme prostration and laborious breathing and bleeding from the nostrils shows severe congestion of the lungs.



Second stage of Inflammation of the Lungs.

TYPHOID PNEUMONIA.

First symptoms.—The horse is off his feed, disinclination to move, appetite gone, pulse weak and low—will some-

Third stage of Inflammation of the Lungs.

times eat a little, will not lie down, not much cough, rarely any discoloration of the membrane of the nose or eyes — urine scanty and high colored—fæces hard and coated. After two or three days the membrane of the nose and eyes a little discolored or red, pulse quicker, 65 or 70, breathes quicker. About the fourth or fifth day there is usually a discharge from the nostrils, of a blackish brandy color cerumen.

Treatment.—Experience proves that sedative treatment is the most effective for cure of inflammation of the lungs, which is greatly assisted by counter irritation. The sedatives proved to be most effective and reliable are aconite, veratrum and belladonna. Veratrum exhibits great power in lowering the action of the heart, while aconite is not only a powerful sedative, but seems to act as a stimulant to the capillaries, thereby causing profuse perspiration.

There is so little judgment or attention given to condition in giving medicine and its effects upon the system, that I shall be compelled to limit myself to the most effective simple treatment. There are but few who seem to know anything about the pulse; this of course should be understood, directions in relation to which, find in another chapter.

Take of tincture (radi) aconite 1 oz.; veratrum ¼ oz.; soft water 4 oz. Dose from 15 to 30 drops on the tongue, every thirty or forty minutes, more or less, and at longer or shorter intervals, according to the severity of the case. In ordinary cases the veratrum may be omitted. If the case is found to be obstinate the veratrum may be added or given separately in about the same proportion.

FOR AN ATTACK OF PLEURISY.

Blanket warmly, and put in a comfortable stall, where there will be pure air, and give of the above fever medicine

from 15 to 30 drops every twenty or thirty minutes, on the tongue. If the case is severe apply some strong stimulant to the legs and on each side of the body and breast, such as mustard made into a paste and rubbed in thoroughly, or a liniment composed of aqua ammonia, reduced one-half with water; or any strong stimulating liniment should be applied. The legs may also be rubbed and bandaged warmly but not tightly, or some stimulating preparation may be used before bandaging.*

INFLAMMATION OF THE LUNGS OR CONGESTION.

Treat as for Pleurisy.—If there is much congestion, it is necessary to give prompt relief, which can be done best by taking four to six quarts of blood quickly from the neck vein, stimulate the sides and legs, and give fever medicine as for pleurisy. I wish now to call your attention to what you must not do. First, you must not give physic or oil for any of the forms of inflammation of the lungs. Cathartic medicine in any form is poisonous, such as aloes, oils, or tartar emetic. There is so much nausea attending the operation of these medicines and debility from their effect. There being also such powerful sympathy between the bowels and the lungs, that they hasten the cause of the inflammation of the lungs, often producing death in a few hours after administering them. Second, do not bleed for pleurisy, as so doing would cause debility of the capillaries of the part that would induce hydrathorax and death. In a severe attack of congestion, bleeding cannot only be resorted to with safety, but is the quickest and surest treatment to give relief, but must not be carried too far, merely to assist the lungs to throw off the load of blood forced upon them, and to give the medicine prescribed a chance to operate.

TYPHOID PNEUMONIA—TREATMENT.

As the word typhoid means low, it is necessary to watch it carefully in that stage, which will last as described in the symptoms, the first four or five days, when in many

*NOTE.—If you give a few doses of aconite as above prepared, about the time fever sets in, or before, the horse will be relieved next day A few swallows of water should be given occasionally. Improvement will be denoted by the pulse becoming full and regular, and the expression and actions being lively.

cases the pulse may run down to thirty. Stimulants should be used at this stage, such as a little brandy and water or whisky and water. A gill or two of liquor to be given as a drench, or what is much better, is, take carbonate of ammonia, from one to two drachms; powdered ginger root, one to two drachms, made into a ball with honey or molasses and given twice a day. It should be remembered that this treatment alone is intended only for the low stage of the disease. When the pulse seems to rise to fifty or sixty about the fifth or sixth day, the patient should then be treated as for pleurisy, with fever medicine. Under the influence of the latter treatment, the pulse will recede and resume its natural number of beats (forty). In this form of disease it is extremely prostrated at first, the whole system being inactive. The pulse may run up in time to seventy, or even eighty.*

The reader may take up veterinary works, and those too by good authority, in which he is told to bleed for pleurisy and lung fever; bleed until the pulse falters. I have only to say that I give you what I know from experience to be safe, reliable treatment, and you are safe in following implicity the treatment given. Indeed, for all ordinary cases, a few doses of aconite, to which may be added, if desired, a little belladonna and veratrum in the proportion given, including same proportion of belladonna there is of veratrum, given promptly, will in almost every instance give relief quickly.

Dr. Somerville of Buffalo, puts up a preparation for the cure of lung fever, colds and chills, which is specific. It will cure every case of chills or fever. A bottle of which should be kept in every stable. If available at your druggist's, get a bottle by all means. It is just the thing, and cheap at any price.

See also introductory chapter to treatment of diseases before treatment for colic.

* NOTE.—In all cases in feeding while the animal is laboring under any of the forms of pneumonia, the animal should be kept moderately warm, have plenty of pure air, cold water in small quantities, a hand full of wet hay, a carrot or two, an apple or a potato or more; anything of an alterative form. Be careful not to exercise too soon.

CATARRH, OR COLD.

Effect of a Cold.

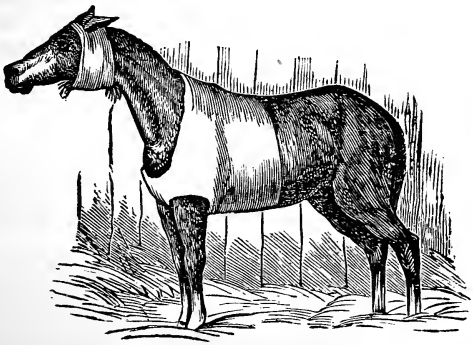
Cold is of common occurrence, and may lead to very serious consequences if neglected. If looked to in time, with a little rest and nursing, the system will soon resume its normal condition.

The usual symptoms are, a little increase of pulse, a slight discharge from the nose and eyes, the hair roughed, not much appetite, and some cough, which is sometimes severe.

Blanket warmly, give aconite as for fever. Nurse by giving bran mashes, etc. If the case is serious it may run into general inflammation of the air passages, as bronchitis or laryngitis. Would aim to keep up the strength, giving fever medicine, alternating with belladonna. Put on a bag, made of coarse, loose cloth, into which put some bran on which throw an ounce or two of turpentine. Hang the bag on the head, same as in cut, being careful not to have it so tight around the nose as to heat or scald and be oppressive. A few repetitions of this will cause the nose to run freely. Rest and care will usually do the rest.

Steaming the Nose of a Horse having Cold.

If there is obstinate inflammation of the throat and air passages, any good liniment



may be applied around the chest and throat and bandaged, as shown in the cut. The object is to stimulate the surface, and this would be an easy, practical way of doing it.

STRANGLES OR DISTEMPER.

This is another form of sore-throat, familiar to every one. Its design seems to be to throw some poisonous matter from the system, and the object should be to keep the strength of the animal up and hasten suppuration.

The horse is out of sorts; the neck becomes sore and stiff; an enlargement appears which is first hard and tender; there is some discharge from the nose. The case usually grows worse, if very severe, often threatening to cause suffocation; horse unable to eat or drink but little, and strength is lost rapidly.

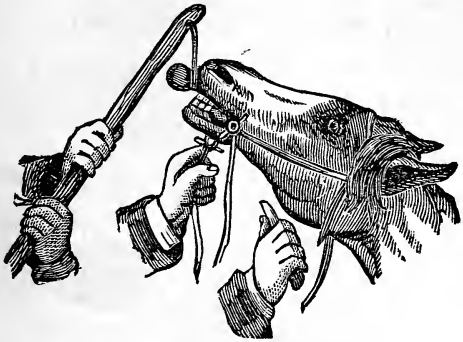
Severe attack of Distemper.

Use freely a poultice made of wheat bran and warm vinegar, changing as often as the poultice becomes dry, using the eight-tailed bandage, until the enlargement becomes soft and can be opened, when relief will be prompt. Or the following treatment may be adopted, which is similar, and if the alteration is not good, is preferable: Take spirits of turpentine, two parts; spirits of camphor, one part; laudanum, one part. Put this on the neck with a brush, if convenient, or any way to apply it without exciting pain, three or four times a day until soreness is caused. After each application have ready three or four pieces of flannel, which should be a good thick article; put these over the parts and bind on with the eight-tailed bandage. When the tumor points, open it, and be sure that the matter has a

Applying an Eight-Tailed Bandage in Distemper.

Eight-Tailed Bandage.

thorough outlet. Sometimes the inflammation is so deep as to cause serious soreness and swelling of the throat. In this case the horse must be nursed carefully by feeding with



Opening the Abscess in Distemper.

warm gruel; the drink should be warm; grass or anything that will tempt the appetite should be given. Simpler treatment would be rubbing on the enlargement an ordinary fly-blister, to bring the enlargement to a head. Physic must not be given.

INFLAMMATION OF THE BOWELS.

This disease is generally caused by constipation of the bowels, hard driving, over-purging or looseness of bowels, or drinking cold water when warm. Constipation is, however, the principal cause of the disease, and when this is the case, the first and most important condition of relief is to get an action of the bowels.

Symptoms of Intestinal and Abdominal Irritation, as shown in Inflammation of the Bowels.

Symptoms. — For the first few hours the horse is uneasy, paws, looks around at the side, the pulse is slightly accelerated and wiry. As the disease advances the intermissions between the attack become less, pulse quicker, running from seventy to eighty beats in a minute, in some instances even

faster; lies down and gets up, shows much pain, no swelling of sides. Now begins to exhibit fever, bowels constipated, urine highly colored and scanty.

Remedy.—Give a quart of raw linseed oil.

Note.—If constipation is very great, add from four to six drops of croton oil.

If scours or over-purging, give an ounce and a half of the tincture of opium with six ounces of water. But in order to suppress the inflammation it is necessary to bleed immediately from the neck vein from six to ten quarts of blood, according to the strength and size of the animal. In extreme cases bleeding may be repeated to the extent of four to six quarts in three or four hours. If much pain exists in constipation, give from one to three ounces tincture asafœtida. Feed lightly for a week at least, giving gruel, roots, grass and bran mashes, and keep quiet. No exercise for several days if there is danger of a relapse. This a dangerous disease and requires prompt treatment.

INFLAMMATION OF THE KIDNEYS.

Inflammation of the kidneys is generally caused by hard work, by slipping, throwing the hind parts so suddenly under the belly as to produce undue tension of the lumbar vertebræ, or from sudden colds by being exposed to rain and cold, the eating of musty hay or oats, or unhealthy food of any kind. Too powerful or too often repeated diuretics produce inflammation of the kidneys, or a degree of irritation and weakness of them that disposes to inflammation, from causes that would otherwise have no injurious effect.

Appearance of a Horse Suffering from Diseases of the Urinary Organs.

Symptoms. — Less or more fever of the system generally, and unwillingness to move, particularly the hind legs, dung hard and coated, very sensitive to pressure on the spine. The horse looks anxiously round at his flanks, stands with his hind legs wide apart, straddles as he walks, shows pain in turning; the

urine is voided in small quantities, and is usually high colored, sometimes bloody; the attempt to urinate becomes more frequent, and the quantity voided smaller, until the animal strains violently, without being able to pass any or but very little urine. The pulse is quick and hard, full in the early stage of the disease, but rapidly becoming small, though not losing its character of hardness. Introduce the hand into the rectum. If the bladder is found full and hard under the rectum, there is inflammation of the neck of the bladder. If the bladder is empty, yet on the portion of the intestimes immediately over it there is more than natural heat and tenderness, there is inflammation of the body of the bladder. If the bladder is empty and there is no increased tenderness and heat, there is inflammation of the kidneys.

Test for Inflammation of the Kidneys.

Treatment.—If the pulse is high, about sixty, take five or six quarts of blood and give a fever ball; to be repeated in three hours if not better. Fever ball: 4 drams Barbadoes aloes, 1 dram tartar emetic, 2 drams ginger, calomel about the size of a bean, molasses sufficient to make into a ball. Counter irritation must next be excited over the seat of the disease. The loins should be fomented with hot water or covered with mustard poultice, or, better, heat a peck of salt in an oven, place it in a bag, and put it over the part affected. If the case is severe and protracted, a sharp blister may be used. *No diuretics are to be given, as they would simply aggravate*, and make the disease worse. After the bowels are open, give aconite, and treat as for fever. After recovery the horse sbould be kept very quiet for a month, and if in season, turned out to grass. If in winter, feed with light mashy diet; exercise lightly by leading, if the animal be valuable and it is desired to aid recovery by extra care.

INFLAMMATION OF THE BLADDER.

Symptoms almost the same as those of inflammation of the kidneys. Frequent voiding of urine in small quantities, quick pulse, looks frequently at flanks, paws violently, tender when pressed upon under the flanks.

Here the principal object is to lower inflammation and relax the muscular contraction of the neck of the bladder. Bleed largely, almost to fainting; give physic as for inflammation of the kidneys, or a quart of linseed oil. A dram of powdered opium, made into a ball, or given in drink, every two or three hours, and blister over the loins. Give aconite, as for inflammation of the kidneys.*

INFLAMMATION OF THE BRAIN, OR STAGGERS,

Is first noticeable by dullness or sleepiness of the eyes, an unwillingness to move, general heaviness of the system. This disease is frequently called *megrims, fits and mad staggers;* but in part only one disease, according to the extent of such disease as the animal may be affected with.

The cause of staggers, is, an undue flow of blood to the brain, which rarely or never occurs in any animals except those in a plethoric (fat) condition.

Some writers and practitioners assert that there is a disease known as stomach staggers. I have never seen a case where it was necessary to treat the stomach, but always direct attention to the brain, as being the seat of this disease, which may be properly called *head staggers.* (In his lecture on this difficulty, Dr. Somerville was emphatic in this conclusion.)

In cases of megrims or fits it is merely a lesser attack, or pressure of the blood-vessels on the brain, and *mad staggers* is a greater pressure of the same vessels on the same part. The brain is divided into two parts, namely, cerebrum and cerebellum, which occupy a horny box in the head. The blood-vessels passing over the brain and coming in contact with the skull, become distended by an increased quantity of blood, and produce the feeling, which is thus exhibited.

* If possible call a veterinary surgeon who will introduce a catheter which will relieve the animal immediately.

There is but one cure for this disease, and that is, remove the cause. Bleed largely from the neck—ten, twelve or fourteen quarts, or until the symptoms of fainting. After the horse is convalescent a sharp dose of physic should be given to regulate the bowels. I would advise owners of such horses to dispose of them. Once taken with the disease, they are subject to a repetition of the attack when the blood-vessels become filled again.

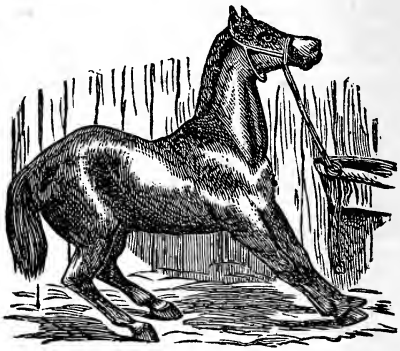
Note.—Small doses of aconite (of the quantity for fever) may be given three or four times a day as a good preventive. Turning horses to pasture that may be liable to this disease will prove both injurious and dangerous.

FOUNDER, (LAMINITIS.)

There are two stages of this disease, acute and chronic. The first produces a high state of excitement and inflammation of the sensible laminæ of the foot. The second, a morbid or insensible feeling of the parts generally. The first is invariably cured if properly treated. The second is not curable, but may be palliated to a limited extent. Acute founder is easily detected. The animal invariably extends the fore feet as far forward as he can, and brings the hind ones in the same position under him. There is so much pain in the fore feet that he endeavors to throw his weight on the hind ones. (See cut.) The common causes of founder are exposing the animal when warm to sudden changes, usually produced by the following means, namely: Standing in cold air when warm, after being driven, driving through a river while warm, or giving cold water to drink while warm, washing the feet when warm and neglecting to dry them, &c. It is generally supposed that feeding a horse while warm will produce founder. This is an error, unless it is such food as will chill the system, which may be done by giving a large quantity of cold wet mixed feed, whereby the circulation would be checked, as before explained.

Founder is simply inflammation in the feet, whatever general disturbance of the system is caused by the pain and soreness in them, and the correct principle of cure is to lower and remove this inflammation before change of structure or sloughing can take place.

Treatment.—As soon as the disease has developed itself, bleed from the neck, according to the size and condition of the animal—from six to twelve quarts. Then give a sharp cathartic ball (7 drams aloes, 4 drams bar soap, 1 dram ginger). Make into a ball and give immediately. After the



The Horse as he Appears when Suffering from Inflammation in the Feet, or Founder.

fore shoes have been removed, poultice thoroughly with bran wet with cold water. This poultice may, while on the feet, be kept wet by dipping the poulticed foot into a pail of cold water, or pouring some on. This poulticing should be kept up from four to five days, when the shoes may be tacked on, and the animal exercised a little. Cloths wet with cold water should be tied around the coronet and the soles stuffed for a week or two. The horse should have tepid water to drink and warm bran mashes during the operation of the medicine. If the disease should be stubborn, which is rarely the case, a second ball may be given after an interval of five days.

Nothing can be done for a sub-acute founder, or case badly treated. If the sole is broken down do not pare the sole. Fit the shoe so as not to press on the sole. Stuff the whole bottom with oakum and tar, and apply leather over. Put on the shoe carefully. Cure is impossible. If warm fomentations are used, instead of cold, a relaxation of the sensible laminæ on the wall of the foot is liable to take place.

The great trouble with most farmers and horsemen is, they do not know either how to bleed or give a ball of physic medicine.

In that case you must do all you can by poulticing the feet and the use of sedatives. Take a large tub or part of a barrel; put in some blue clay, upon which pour hot water. (The mixture should come half way to the knees when the horse stands in it.) See that it is not hot enough to scald. Stand the horse in for several hours, after which poulticing as before, at the same time give aconite as for fever. You can also give a pint of raw linseed oil. It would be also conducive to success to bleed from the toes, which can be easily done by cutting through the sole at the toe.

If, however, you can treat as first advised, your success will be certain, as this treatment I know will cure any case of acute founder, or laminitis.

HEAVES, OR BROKEN WIND.

Heaves produces increased action of the flanks. The inspiration is natural, but the expiration requires two motions to expel the air. There is always a short cough, or grunt, and at the same time expels wind while coughing. Heaves are never found in the racing stable, where horses are properly fed. They are always found among cart or team horses, where the owners suppose they must feed a large quantity of coarse food or hay.

The seat of the disease is located in the air cells of the lungs, causing enlargement and sometimes a rupture of these cells. A result of bronchitis, or inflammation of the small air passages of the lungs, is the lodgment of mucous fluid in those passages of the lungs, causing inability to breathe, (wheeze,) and leads to this result. But in all cases of heaves we find the horse to be a greedy eater,—stuffs the stomach with coarse food, causing the lungs to be greatly restricted in their action, causing an enlargement of or rupturing of the air cells.

An important and necessary auxiliary to the successful treatment of heaves is restricting the quantity of coarse food or hay, and increasing that of condensed, nourishing food, thereby giving the lungs increased room to act. Horses fed on chopped stuff, corn fodder, etc., improve, and get worse by being fed on coarse food or hay.

Heaves disappear by feeding prairie hay or grass, because it is so coarse the horse cannot gorge the stomach with it. Hence there is improvement by feeding corn stalks or fodder, as they contain more saccharine matter and do not engorge the stomach. I have given the tincture of rosin weed, which is claimed to be the curative principle of prairie hay, without satisfactory results, and can produce equally satisfactory results by other treatment that is claimed for that of feeding prairie hay.

First give one of the following balls: Ginger, powdered, ½ oz.; capsicum, ¼ oz. Form a ball. This ball to be given three nights in succession; then omit two or three nights, and one or two balls may be given again in succession. The horse should have regular exercise, be watered often, (small quantities at a time,) and have straw instead of hay to eat, (corn fodder would be much better.) Under this treatment heaves will disappear.

FAVORITE REMEDIES FOR HEAVES.

1. Spanish brown, 2 oz.; tartar emetic, 2 oz.; resin, 4 oz., ginger, 2 oz. Mix and give two teaspoonfuls twice a day in the feed.

2. Vegetable tar, in mass, ½ oz.; gum camphor, ½ oz.; tartar emetic, 1 dram. Form into a ball, one of which is to be given once a day.

3. Take indigo, 1 oz.; saltpeter, 1 oz.; rain water, 1 gallon; mix and give a pint twice a day in the feed.

I could include a great many *pretended "sure cures"* for heaves. I have used in my practice almost everything for this purpose, comprising sulphuric acid and corrosive sublimate, etc., as experiments, and find them comparatively or wholly worthless. If the horse shows heaves after a severe cold or inflammation of the lungs, there will be wheezing from a filling of the air passages with mucus. Hence gentle exercise, stimulating medicine to the air passages and lungs, and condensing the food, will give relief, since the lungs are thereby stimulated and freed from mucus, as well as giving freedom to act, and there is, in consequence, relief.

You will find the above treatment to work splendidly in most cases. They will give relief in all cases with proper attention to feeding, and will in many cases possibly make a cure.

TO CURE ROARING, OR WHISTLING.

The following treatment for the cure of roaring, or whistling, as it is termed, has been used by Mr. E. D. Conklin, and others, in Cleveland, Ohio, and they claim the most satisfactory results. Mr. Conklin, who is a large owner of horses, and perfectly reliable, states that he cured one very bad case; could not pull a load two rods up-hill without blowing and choking down; was completely cured in six weeks. Has tried it in a number of cases, and always with satisfactory results. The treatment was introduced by Mr. Johnson, of Cleveland, who claims he can cure any case. As there is no really satisfactory treatment for this difficulty in regular practice that I know of, I give this remedy and state my authority. It can be tried with safety.

Treatment.—From 10 to 20 drops of sponga fosta on the tongue in the morning. At night the same proportion of Fowler's Solution in the same manner, to be repeated alternately for from four to six weeks, giving more or less and for a longer or shorter time, according to the severity of the case, until a cure is effected.

TETANUS, OR LOCKED JAW

This disease is wholly of a nervous character. A description of the symptoms is scarcely necessary, but in the first stage there is a disinclination to move; then the tail becomes erect and quivers, the ears set back, and the conjunctiva is thrown over the pupil of the eye, and the head is elevated.

As the disease advances, the muscles all over the neck and body become stiff and rigid, and the legs have the appearance of a four-footed stool. The animal has little or no power to move.

For the first few days the teeth remain apart, but as the disease advances, the muscles of the jaw become so contracted as to bring them close together. Hence the name of locked jaw.

The causes of this disease are numerous, but it is generally produced from a wounded nerve or bunch of nerves, pricking the tail, and very often from docking, punctured wounds in the feet from glass or nails, and sometimes from severe exposure to cold, and I have known one case to occur from fright. As to the pulse, it is almost normal for the first few days. As the disease advances the pulse quickens,

and the animal is compelled to stand on his legs until death, if it terminates fatally. If favorably, a relaxation of the muscles begins from the fifth to the seventh day. This disease is more common in the extreme South than in the North.

Treatment.—First, as the disease is of a nervous character, quietness is of the greatest importance. The animal should be put into an isolated place or box, by himself, and the cause of the disease found. If from docking, the next joint should be taken off the tail. If from a wound in the foot, the wound should be opened up and made new, and an application of digestive ointment inserted, so as to produce a healthy flow of matter. When the irritation has ceased from the wound, a pail of gruel should be placed before him, in which is mixed half an ounce of tartar emetic. This medicine should be given daily, and the spine rubbed well with a strong liniment, composed of one part of aqua ammonia and two parts of sweet oil. This embrocation should be employed daily until the back becomes sore.

Tetanus never arises from a wound until about the period that it may be considered healed. Bleeding about four quarts daily for four or five days has cured several bad cases. Think if the bowels can be regulated, quietness has more to do in producing a cure than all other remedies.

POLL EVIL AND FISTULA OF THE WITHERS.

These difficulties are of the same character, though in different locations, and the treatment of one will be sufficient for both. Poll evil is sometimes caused by striking the poll against a beam or floor, being struck or otherwise injured, or it may be the result of constitutional predisposition.

When the inflammation and enlargement are first discovered, you may be able to disperse it by giving a dose of physic and applying cooling applications to the part.

If the inflammation does not abate, clip the hair and rub on some blistering ointment. When the swelling enlarges, open and allow the pus to escape; cut down to the bottom, making a good large orifice.

In treating all ulcers, there is one point that must be kept in mind, and that is to make an opening at the bottom if you can, to let the matter run out, as matter always burrows to the bottom. This should be done by running a seaton through, bringing it out a little lower than the bottom of the wound, or what is termed a dependent opening. Wash the sore out clean. It is afterwards to be washed clearly with any of the healing preparations for ulcers, given in another page.

If pipes are formed requiring caustic medicine, you can use either chloride of zinc, corrosive sublimate, or any strong escorotic to destroy such growth, after which treat as before. These are very serious difficulties to treat, requiring proper dressing daily.

Fistula of withers to be treated in the same manner. The principle of treating these difficulties is really the same as that of any ordinary deep seated ulcer, more special directions for the treatment of which will be found under that head.

SWEENY.

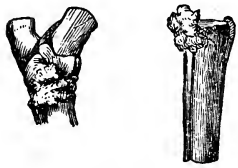
Sweeny is really a fictitious disease, discarded by all reliable practitioners. They claim, and how justly I am not prepared to say, sweeny is the effect of diseases of the feet, such as corns, navicular diseases, ossification of the lateral cartilage, contraction, etc., producing atrophy of the muscles of the shoulder, and their treatment would be to remove the cause, and the effect would cease. If you wish to pursue a local treatment of sweeny or filling up of the shoulder, you can do it by the application of most any stimulating treatment. One of the simplest and best, which will work in every case, and which most horsemen will regard as of more value than the price of this book, is the application of soft soap. Add a little salt to soft soap and rub on the part thoroughly four or five times in the course of a week. Four applications will fill up the depression of the worst case. The regular treatment would be seatoning and blistering, but this will do all that is required so far as local treatment.

In addition, by all means, if any difficulty is discovered in the foot, treat it also, as explained in another chapter.

SPAVIN AND RINGBONE.

There are two kinds of bone spavin, namely: Jack and occult, or consolidated joint. The first is located at the upper portion of the metatarsal bone at its juncture with the cuboid bones. The second is usually located higher up and more on the inside of the astragalus bone at its junction with the cuboid bones.

Spavins of either of the above classes have the same origin and same causes, namely, inflammation of the cartilage of the joint in the first instance, and extending to ulceration of the bone, consequently bony matter is thrown out, uniting more or less of the bone of the hock and excess of matter and ulceration of the bones from the enlargent.



Showing the Changes of Structure Caused.

The causes of spavin are numerous, but principally of one class, such as sprains, hard work, blows, and, in fact, any cause exciting inflammation of this part. But a common cause and a great fault lies in the breeders of horses, as very often the colt is bred from spavined sire or dam, or both, and the colt is certain to inherit the same predisposition.

The symptoms at the commencement are treacherous. Very often horses are treated for hip lameness before any enlargement makes its appearance. The horse, at first, is very lame while laboring under acute inflammation of the hock joint. He will not wear out or the lameness as he does in the more advanced stage of the disease. The tumor generally makes its appearance from the fifth to the eighth week. Sometimes, however, the lameness is very gradual — scarcely perceptible at first—getting worse until there is marked lameness at starting, which will soon wear off as the horse warms up.

Bone Spavin.

The method of curing is varied, as there are hundreds of different remedies and applications. Some men go so far as to pretend they can remove spavins. To a skillful practitioner this is absurd. It will be seen that if such quacks *can* remove the external tumor, they *cannot* separate the bones

which are united, and horses may be spavined without any visible enlargement.

Natural Action. Effect of bad Spavin —Leg not brought Forward.

I can simplify all this to gentlemen interested, by illustrating with my specimens, the location, nature, changes of structure, &c., in spavin, a large collection of which I carry for the purpose. Sublimates, muriatic, sulphuric, and nitric acids form the basis of the different ointments that are applied to remove this formidable disease. They always make a bad sore, and blemish the animal for life.

The only reasonable treatment for bone spavin is counter irritation and rest. If there is heat during the first few days, apply cooling applications, such as an ounce of sugar of lead to half a pail of ice water. Keep the leg wet for about two weeks, when it may pass off. A dose of physic should be given. If this stage has passed, repeated blistering with a preparation of iodine or cantharides will be necessary; but much better would be the actual cautery in an operator's hands. Clip the hair closely over a large surface four or five inches above and below the enlargement, and then out to the middle of the back and foreparts of the leg. Any of the strong blisters recommended for spavins, for which formulas are given below, are to be used. If a blister, rub it in well with the hand for ten minutes or more. In two days put on some grease. When the inflammation goes down, wash with warm water and castile soap, and when dry put on more blister, and so repeat, keeping up just as much irritation as you can without destroying the hair. In the meantime, the horse must be kept in a comfortable stall, for one of the conditions of cure is rest. Keep up the inflammation in this way for four or five weeks, after which give a run to grass. It is sometimes necessary to blister lightly, if the lameness does not disappear, in six or eight weeks, which may be repeated a few

times, with iodine ointment in the proportion of one part of iodine to four of lard.

Ringbone.

Work should be light, if any, within three months. This treatment will usually cure without leaving a blemish.

Treat ringbones on the same principle. Trim off the hair and blister in the same manner, observing the same condition of rest. As regards taking off the enlargement, this treatment is as effectual towards that end as can be used.

Several of the very best recipes for the cure of spavins and ringbones will be found below.

Bear in mind, you must always clip the hair off of the part to be blistered, and that the medicine must be rubbed in well with the hand for ten minutes.

VERY STRONG BLISTER FOR SPAVINS, RINGBONES, CURBS, ETC.

Finely powdered cantharides, 1 oz.; powdered euphorbium, 2 drams; lard 1 oz.; tar, 2 oz.

A VERY ACTIVE BLISTER FOR SPAVIN, RINGBONE, ETC.

Two drams corrosive sublimate, 1 oz. lard, ½ oz. tar, 2 drams cantharides. Rub and mix well together.

A GOOD BLISTER FOR SPAVIN, RINGBONE, ETC.

Biniodide of mercury, ½ dram; cantharides, 1 dram; lard, 1 oz.

A fine blister for any purpose requiring counter irritation and absorption, will take off curbs, splints, &c.

POWERFUL ABSORBING BLISTER FOR SPAVIN AND RINGBONE.

Equal parts of beniodide of mercury and cantharides, three parts of tar and lard each. Rub in well with the hand for three mornings, and use lard after to soften and take off the scab, when it may be repeated if necessary.

SWEATING LINIMENT FOR WINDGALLS, ETC.

Strong mercurial ointment, 2 oz.; camphor, ½ oz.; oil of rosemary, 2 drams; oil of turpentine, 1 oz. Mix.

VERY STRONG SWEATING BLISTER, FOR WINDGALLS, CURBS, SPLINTS, ETC.

Biniodide of mercury, ½ to 1 dram; powdered arnica leaves, 1 dram; soap liniment, 2 oz. Mix.

A FINE ABSORBENT FOR TAKING DOWN ENLARGEMENTS OF ANY KIND.

One ounce beniodide of mercury; from 1 to 3 ounces of lard, according to the strength desired.

The following remedy for the cure of spavin and ringbone is regarded as one of the best used. It is sold in the Mohawk Valley, (where I obtained the prescription,) for $5.00 a box, and FIFTY DOLLARS has been paid for this receipt. It is, I think, the best of this class of prescriptions published.

FOR SPAVIN AND RINGBONE.

Five ounce euphorbium, 2 oz. Spanish flies (fine), 1 oz. iodine, dissolved with alcohol, ½ oz. red precipitate, 1 oz. corrosive sublimate, ½ oz. quicksilver, 6 oz. hog's lard, 6 oz. white turpentine, ¼ lb. verdigris. Melt the lard and turpentine together, then while hot add all together. Mix well; when cold it is fit for use. Rub it in thoroughly on the spavin every day for three days; then wash clean with soap suds; omit for three days and then repeat for three days again, and so on until a perfect cure is produced. Should it blister, use it more cautiously.

This medicine will get up as much inflammation as you desire, and must be applied cautiously or it will blemish.

The following remedy for the cure of ringbone and spavin, and taking off enlargements, has been peddled through the country as a remedy of the greatest value. As high as one hundred dollars has been paid for this receipt. I give it as given me.

Take alcohol, 14 oz.; iodine, 304 grains; bichloride of mercury, 150 grains. Let stand in a sand bath twenty-two hours, then add 230 drops croton oil; let it stand in sand bath twenty-two hours longer, then bottle for use.

Next take quicksilver, 14 oz.; nitric acid, 7 oz.; stir one minute; cantharides, 7 drams; stir five minutes; sulphuric

acid, 7 oz.; stir three minutes; 50 drops of the above liniment. Let stand five hours, stir every half hour, then add 7 oz. prepared chalk.

First shave the hair off the "bunch," then apply the liniment with a lather brush. Sprinkle a little of the powder on paper, and rub on, after washing with the liniment. When the bunch is reduced two-thirds, wash with warm water and castile soap. In twenty-four hours grease.

This is one of the very strongest remedies used for spavin and ringbone, and if not used with great care is pretty sure to blemish. I will here state that educated practitioners use the milder treatment, immediately following the description of spavin. Properly done, the actual cautery or firing is undoubtedly the best and most reliable treatment. This is the treatment I use for these difficulties. Dr. Wm. Somerville frequently charges $100 for curing spavins, &c., on valuable horses by firing, guaranteeing not to blemish. While the operation of itself is simple, it is one that requires rare practical skill, and is done successfully only by a few of the best practitioners.

Youatt, one of the best of the old English authors, says in regard to

FIRING FOR SPAVIN.

Whatever seeming cruelty may attend this operation, it is, in many cases, indispensable. The principle on which we have recourse to it is similar to that which justifies the use of a blister; by producing superficial inflammation we may be enabled to remove a deeper-seated one, or we may excite the absorbents to take away any unnatural bony or other tumor: it has also this additional advantage, that, while it raises intenser external inflammation than we can produce by other means, it is the most powerful agent that we have at our disposal. Humanity, however, will dictate, that on account of inflammation which it excites, and the pain which it inflicts, it should only be had recourse to when milder means have failed, except in those cases in which experience has taught us that milder means rarely prove successful.

The part which is to be submitted to the operation is shaved, or the hair is cut from it as closely as possible with the trimming scissors. This is necessary to bring the iron into immediate contact with the skin, and likewise to prevent the smoke that will arise from the burned hair from obscuring the view of the operator.

The details of the operation belong to the veterinary surgeon. The grand points to be attended to are to have the edge of the iron round and smooth; the iron itself at, or rather below red head; to pass it more or less rapidly over the skin, and with slighter or greater pressure

according to the degree of heat; to burn into the skin until the line produced by the iron is of a brown colour, rather light than dark, and by all means avoid *penetrating* the skin. Leaving the additional cruelty of deep firing out of the question, we may depend on it that, if the skin is burned through, inflammation, and ulceration, and sloughing will ensue, which will be with much difficulty combated; which will unavoidably leave unnecessary blemish, and which have destroyed many valuable horses. It may happen, nevertheless, that by a sudden plunge of the animal, the skin will be unavoidably cut through. The act of firing requires much skill and tact, and the practitioner cannot be always on his guard against the struggles of the tortured beast. It will also, and not unfrequently occur, that the skin, partially divided, will separate in two or three days after the operation. This must not be attributed to any neglect or unskillfulness of the surgeon, and the ulceration thus produced will be slight, and easily treated, compared with that caused by the actual burning through of the skin.

Some practitioners blister immediately after firing. As a general usage, it is highly to be reprobated. It is wanton and useless cruelty; but it may be required in bony tumors of considerable extent, and long standing, and interfering materially with the action of the neighboring joint. Spavin, accompanied by much lameness, and ring-bone spreading round the coronet, and involving the side cartilages, or the pastern-joint, may justify it. The inflammation is rendered more intense, and of considerably longer duration. In old affections of the round bone it may be admitted, but no excuse can be made for it in slighter cases of sprain, or weakness, or staleness.

The point in firing for a spavin is first to fire over a large surface. The perpendicular lines should run about two inches apart, and the oblique ones about a scant half inch apart. The iron should have an edge of about a thirtieth of an inch across the edge, but smooth and rounding, not sharp or too prominently dull; something like the back of a wood-saw, but slanting back thick immediately from the edge, and should be of steel. Two irons are necessary. The end, or firing part, shown, is just half size. The handle part should extend back twenty one or two inches, of simple half-inch round iron.

Back view of a leg fired for spavin.

First clip the hair off the leg to be fired for spavin quite close, and over about the proportion of surface shown, clear around to the middle of the leg, behind and before. Now put your irons in the fire, and make ready. There is a great difference in horses about standing while firing; some

A quartering view of a leg as it should be fired for spavin.

will stand quite well with an ordinary twist on and the opposite hind leg tied forward with a rope or strap around the neck. The best is putting in a frame, with the irons a dull-red heat. Catch a firm hold about ten or twelve inches back, and draw the edge backward and forward rapidly on the floor, rolling the edge a little, right and left, so that the whole surface will be polished smooth. Now draw the edge down, forming the main outline creases: of course they come nearer together at the bottom than at top. And now for an important point. You must not burn through the skin, yet as near it as you safely can. Your hand must be perfectly steady, and, the instant you rest the edge on the skin, draw it steadily but carefully, at one stroke, to the end of the line. There should be a dull white line, of a uniform size and color. Your eye should be on the iron, and the effect it is producing. If the iron is very hot, it acts too quick, and may burn through if you are not very careful, which is what you must avoid if you would avoid blemishing; for, wherever the skin is broken through, sloughing will follow, unless you arrest it by using an astringent, and then you cannot always prevent such a result. If the iron is at just the point of heat so that it will burn, but not too rapidly, you are able to repeat the stroke two or three times to get it just what you desire.

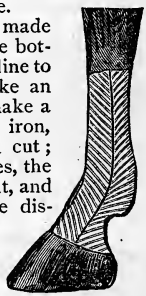
A side view of a leg as it should be fired for spavin.

A view of the leg when drawn forward after firing.

Firing for ringbone. Lines perpendicular (no cross-lines) about same distance apart as for spavin.

Without the perpendicular lines made now, you should commence at the bottom, and draw obliquely from one line to the other, slowly but steadily, like an artist who draws a fine brush to make a stripe. The heavier you draw the iron, and hotter it is, the deeper it will cut; so that the colder the iron becomes, the slower and heavier you must draw it, and the hotter the quicker and lighter. Do not make the distance between these lines less than seven-sixteenths of an inch apart, and not much, if any, over a half inch.

If you run them much nearer together, and at all heavy, the whole skin would possibly slough; while, if you make the lines much farther apart, you will not get the amount of inflammation you desire. As one iron gets cold, put it in the fire, and take out the other. If too hot, plunge it into water until just



A side view of a leg fired for inflammation of the back tendons.

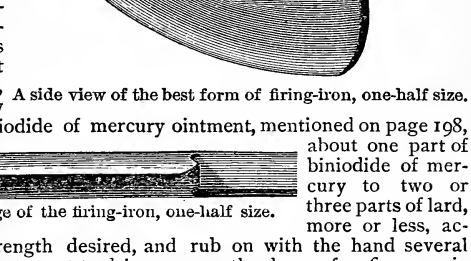
right; when, as before, rake the edge back and forth on the plank or floor: and go on until you get the surface to be fired done. The deeper you fire, the more extensive the inflammation; the lighter, the less. Usually, all the inflammation that can be obtained is desirable; but, on the other hand, it is important not to leave a blemish, and this is sure to follow if the skin is cut or burned through.

A front view of a leg fired for strain of the back tendons.

A back view of the lines for firing the fore-leg.

Put the horse now in his stall, and next day, if the firing is deep and looks very dry, rub on a little lard. This will soften the skin, and render it less likely to ulcerate. In a day or two, if you see any part disposed to slough, take a little of the Magic Healing Powder, — given in another page, — and dust it on. This is one of the nicest healing preparations I ever saw, and works finely here. When the leg looks dry, put on a little more grease; but be careful about putting much, or too often, as it lessens the action of the firing quite rapidly, which is what you do not want. Nothing more is necessary to be done. Let the leg alone, being careful to keep the horse tied a little short, for he may try to bite the part, and cause a severe blemish.

A good action of firing will run some two weeks or more. The inflammation will gradually go down, until the lines heal and draw up together, forming a bit of a seam. In about three weeks the inflammation will be about all out. The lameness will usually disappear as the inflammation now subsides. If there is much enlargement and much soreness, you may now apply a little of the biniodide of mercury ointment, mentioned on page 198, about one part of biniodide of mercury to two or three parts of lard, more or less, according to the strength desired, and rub on with the hand several minutes. Do not attempt to drive or use the horse for five or six weeks, or more, if you can avoid doing so.



A side view of the best form of firing-iron, one-half size.

A view of the edge of the firing-iron, one-half size.

This is really all there is of this matter of firing. It does not matter, so far as it effects the cure, about the form of the lines; but the point is, the less the lines cross, or are broken, the less danger of sloughing; and made as directed, obliquely, they draw the skin shorter, and are thus a sort of a bandage upon the part, which of itself aids absorption. The principle of firing is the same for firing the fore-legs, the form of the lines simply being different. For ringbone, simply drawing the lines straight down, the same as the cut shows.

It does but little or no good to fire over the enlargement only; because not getting action enough, unless the surface is burned very deep, which would leave a bad blemish.

So far as medicine will cure, any of the spavin prescriptions under that head in this chapter are among the very best. Some of them are very active, and splendid in their action. The whole theory is to produce a strong local inflammation, which must be kept up, or renewed often enough to cause a union in the bones involved; we simply produce this necessary condition to help nature make a cure. It is easy enough to compound medicine that will make the leg sore; but here, as in firing, dissolving the skin will leave a bad blemish, and medicine should be used, that, while making a strong irritation, will not destroy the skin.

BLOOD SPAVIN, THOROUGH PIN,

Soft enlargements upon the hock. If not of long standing, the following will be found very effective, though simple: Rub on soft soap, to which has been added a little salt, at night, and wash off in the morning. Two or three applications will cure, if recently caused. If of long duration, blister two or three times, as for bone spavin.

Thorough Pin.

Bog, or Blood Spavin.

SPLINTS.

This is an enlargement between the cannon and splint bones, showing itself on the inside of the fore leg. The same treatment as for spavin.

Changes that may be Produced.

Splint.

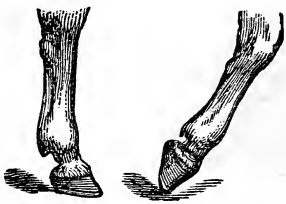
CURB.

Clean Hock. Curb. Curb.

This is an enlargement of the integument, and in some cases of bony deposit, usually caused by a strain. It is situated on the back part of the hock, just below the cap. Blister with remedy for spavin.

SPRAIN OF THE BACK SINEWS.

The animal becomes suddenly lame, and by use grows worse. Pass the fingers down on each of the tendons back of the knee. A little enlargement, if there, with considerable inflammation, will be discovered. Use cooling astringent liniment until the acute stage passes off. If not better then, blister, observing to give the animal rest. Firing is the most reliable treatment.



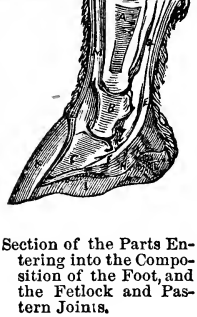
Enlargement caused by Sprain of the Tendons.

COFFIN JOINT LAMENESS

Is often mistaken by those who are not capable of locating the diseases of horses' feet to be lameness of the shoulder, from the fact that generally after the shoe is removed, and no external injury is discovered in the foot, some distant part is selected as the location of the disease. Navicular disease is dangerous and treacherous in its progress and development. It is commonly caused by violent sprains of the navicular joint, although sometimes, and in fact, very often, may be induced by a contusion of the frog; and

again, there is a disposition to have this disease from hereditary causes.

The coffin joint is composed of three bones: the os pedis, the navicular and small pastern bones. The navicular bones answer the purpose of a support in allowing great elasticity of motion. The flexor tendon inserts itself into the os pedis, and passes immediately over the navicular bone, so that at each step the navicular bone is thrown upon one part of the os pedis and small pastern at the same time. It will be seen that in all cases of lameness of this joint, as well as in any other joint lameness, that the cartilage of the bones is inflamed, and as the disease progresses ulceration takes place, and consequently ancholosis. It is almost striving against hope to be able to explain to the general reader the symptoms to enable ability to locate the disease with any degree of certainty. Corns or bruises of the sole, contraction, or almost any cause exciting inflammation in the foot, may cause similar lameness, and to an ordinary observer there cannot be that fine judgment necessary to trace from certain peculiarities the location of the trouble.



Section of the Parts Entering into the Composition of the Foot, and the Fetlock and Pastern Joints.

a Os suffraginis. *b* Os coronæ. *c* Os pedis. *d* Os naviculare. *e e* The perforans and perforatus tendons. *g* Inferior sesamoideal ligament. *h* Cleft of frog. *i* Side of frog cleft. *j* Sole. *k* Crust. *l* Coronary substance.

Horses having navicular disease invariably travel more on the toe than on the heel, consequently the shoe is always worn more at the toe than at the heel. The hoof rarely or never is malformed, but the disease commonly occurs in healthy looking feet, contraction of one or both heels, which will in many cases interfere with the outer cartilage of the joint. In the cases of long standing the frog appears to recede, and does not have a natural appearance. If the horse is taken suddenly lame, sometimes scarcely putting the foot down, and only presses upon the toe, feel of the foot carefully. If there is heat around the top of the hoof and tenderness—even a little at the heel—there is probably strain of the coffin joint. In incipent cases (first stages) there is fever and tenderness to motion of the joint, which

is noticeable by catching the foot in one hand, the ankle in the other, and twisting a little. The animal will show pain and resist.

As to treatment, in the first stage, the shoe should be removed, and have the toe of the shoe hammered down. The heels should be raised, and applied again so as to remove all pressure from the frog, and a cloth or rug saturated with cold water applied to the coronet. The bottom of the foot should be stuffed with oil meal or some adhesive substance. If this is done for a few days, with rest, the first attack will generally pass off.

In the more advanced stage of this di ease it will require thorough treatment. The shoe should be formed and applied as before, and a severe blistering applied to the coronet, which should be continued for from one to three weeks, with rest. At a still more advanced stage the frog seaton may be used, but this must be done by an experienced practitioner.

In all cases of this disease the animal will require considerable rest.

I would here remark that in an advanced stage of the disease the horse is a little lame, sometimes worse, at others better; rough road and down hill worse; is no worse to be at work; usually no apparant change in the hoof; will go better when the heels are raised by using high-heeled shoes; worse by bringing heels to the ground.

LAMENESS.

In treating lameness successfully, it is necessary to be able to understand the peculiarities of joint from muscular lameness,—in fact, of the action and movement incidental to each.

The horse is, for example, lame in the fore foot, and without knowing just what the trouble is, something must be done, and the shoulder is furiously attacked, being blistered, seatoned or subjected to some needless form of cruelty which can have no effect whatever on the injured part.

In the first place, if the shoulder is strained or injured, the horse cannot raise or put the foot forward naturally. He will drag it like, giving it a sort of swinging motion, and does not bring it very far forward. On the other hand,

if the injury is in the foot, the foot is raised up and put forward easily and naturally, but is put down tenderly.

Again, a case of muscular lameness, such as shoulder lameness, straining of the back sinews, (suspensatory ligaments,) the lameness will get worse by use. That of the foot, such as corns, coffin joint lameness, pricking with a nail, etc., remain about the same; besides, if there is much soreness in the foot, from contraction, corns, pricking, strain of the coffin joint, the foot will be put forward or rested upon the toe. This will always be the case if there is much soreness of the heels, as resting upon the toe relieves the pressure and pain. Hence it is a marked symptom of coffin joint injury, of corns and thickening of the lateral cartilages.

Again, if there is much inflammation, increased heat can be felt in the foot.

FIRST, SHOULDER LAMENESS.

Symptoms.—The animal drags the leg, with the toe on ground, and cannot raise the foot.

Treatment.—Local bleeding from the plate vein on the inside of the leg is very effectual, with a purging ball. Fomenting the shoulder with hot water will be found useful. If, in a few days, fomentations do not succeed, and the case seems obstinate, rub on thoroughly soft soap and salt, which will be found a fine stimulant, and is easily obtained. If any eruption should arise from the application of this dressing, apply a little sweet oil or lard, which will remove the scab in a few days.

PRICKING.

If the horse becomes lame after being shod, examine the foot carefully. If pricked by driving any of the nails too near the quick, there will be heat and tenderness in the hoof easily discovered. Tap the nails around carefully; when the part injured is struck there will be prompt resistance shown. Have the shoe taken off, and cut down to where the nail strikes the quick, enough to make room for any matter that may have formed to escape; then poultice with flax seed meal until the inflammation is reduced, when a little tar, resin, or tallow, or something of this kind,

should be put on, and the opening filled up with a little tow to prevent gravel or dirt from getting in, and put the shoe on again.

CORNS.

Described in the article on Shoeing. The most difficult corns to treat are those in weak, broad heels. If in a high, strong heel, and contracted, all that is necessary to do is to trim out the corn, dress it with a little mild caustic to produce a healthy action, fitting the shoe so as to preclude all pressure upon the part, and the horse will go off all right. There is not horn enough to protect the heel from pressure when the heel is wide and weak, we must now accomplish two ends: remove pressure from the sole, and at the same time make the heels strong by growing strong, healthy horn. Put on a nicely fitting bar shoe, which will protect the heel by bringing pressure upon the frog.

The usual and scientific treatment is to apply a strong cantharides blister right over the seat of the corn, on the coronet. Stimulants of any kind will increase the action. Many remedies are used for this purpose with varied effects, but regular blistering really stands at the head of all. There is great danger of separation from the continued pressure of the shoe upon the affected part. The blacksmith may tell you it is a gravel, to shield himself from his inability to fit a shoe that will relieve pressure. In such a case it will be necessary to let the animal lie still and dress the part with an astringent, such as alum and water, sugar of lead and water. After the feet seem healthy, put on a bar shoe as before stated, and put the animal to work.

The following remedy seems to have a splendid effect in removing soreness and growing the feet. I know of its being sold for ten dollars. It is the best thing for the cure of weak, sore feet I ever saw. It softens the hoof and grows horn rapidly, as well as removes soreness.

HOOF LINIMENT FOR CONTRACTED OR SORE FEET.

Venice turpentine, ½ pint; aqua ammonia, 2 oz.; salts of niter, 1 oz.; benzoin, 1 oz.; alcohol, 3 oz. *Apply to the edge of the hair and all over the hoof once a day for a week; after that, for a week or two, three or four times a week, as may be necessary.*

The effect of this preparation on sore, weak feet, and upon contracted feet, in many cases, is wonderful, and is undoubtedly the best preparation for the feet yet published. It is well, however, to bear in mind that the primary condition of curing contraction is the use of mechanical means of expansion as given under that head.

STEPPING ON NAILS, GLASS, OR ANYTHING THAT PUNCTURES THE SOLE OR FROG.

The first thing to be attended to is to remove the nail, glass, or whatever it is, from the foot, carefully. See that no part remains, and remove a little of the hoof from around the opening. Drop a few drops of Friar's balsam into the orifice, and cover the part with a flax seed poultice. Friar's balsam can be obtained in almost any drug store. If this is not obtainable use the simple digestive ointment, given in another chapter.

HIP LAMENESS

Is a formidable disease. Its principal seat is in the whirlbone joint, and is usually caused by sprains or falls. The animal from this form of lameness will stand on the affected limb, and will not show lameness. The muscles are not called into action in elevating the limb. Then there is a dragging or swaying motion of the limb outwards. By placing the hand on the hip joint, an extra degree of heat will be found to invest this part.

Treatment.—First, absolute rest; next, same treatment and remedies as given for shoulder lameness. Treatment should be repeated until recovered, which requires from one to two weeks.

RETENTION OF URINE.

The most common cause is keeping the animal at work, not giving time to urinate, and a spasm of the neck of the bladder or gravelly concretions; any cause of irritation may cause spasm. Symptoms are the same as in inflammation of the kidneys, except standing very wide behind, and when walking, a straddling gait resembling a cow with a very full bag.

The most prompt treatment is to use the catheter, and scarcely anything more is necessary. But if one is not obtainable, bleed freely and give a strong opiate. 3 oz. tinct. opium, in half pint of water.

SCOURS, OR PURGING.

This disease is generally produced by two causes: change of food or water, or unhealthy food, and sometimes through nervous excitement.

Cure.—Neutralize the acids in the bowels by giving an ounce and a half of prepared chalk and a dram and a half of powdered catechu, mixed in a pint of water. Give once or twice a day until purging ceases. Keep the animal without exercise, and do not give much water to drink.

If this disease should arise from nervous excitement, give a dram of powdered opium in the food once a day for three or four days.

PROFUSE STALING.

The causes of this disease are, the improper use of diuretic medicines, as saltpeter, resin, &c. Unwholesome food will sometimes produce it.

Treatment.—Give one of the following balls every night: Powdered opium, ½ oz.; powdered kino, 1 oz.; prepared chalk, 1 oz. Mix with molasses, and make six balls.

Or give the following powder once a day mixed in the food: gentian powdered, sulphate iron, a dram and a half of each.

BLOODY URINE

Is generally the result of injuries of the loins, unwholesome food, violent exercise, &c.

Treatment.—Give plenty linseed tea to drink; if the animal refuses it, drench him. Give internally, once a day, one of the following pills: sugar of lead, 1 oz.; linseed meal, 2 oz. Mix with molasses and divide into eight parts

SPASMODIC ACTION OF THE DIAPHRAGM,

Commonly called thumps, is caused by severe and long continued driving and hard work. Horses of a nervous

temperament having too much cold water given to drink on a cold morning, nervous irritation, severe work or excitement from any cause, may excite this trouble.

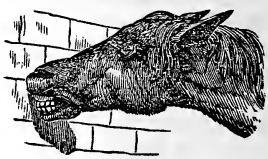
Symptoms.—A sudden jerking or twitching of the muscles of the sides and flanks; pulse wiry, quick and low, more or less fever; extremities natural.

Cure.—This disease being of a purely spasmodic character, but in this case wholly of a nervous nature, bleeding must be omitted, and must be treated wholly by giving spasmodic remedies. Give assafœtida, in a dose of from 1 to 3 ounces of the tincture, mixed in a half pint of water. Given as a drench will stop it almost instantly.

If necessary, the medicine may be repeated in two hours. Keep the horse well clothed, and keep all exciting causes away from him. The bowels should be kept loose and regular, by giving bran mashes and moderate exercise.

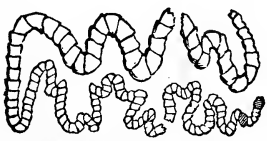
WORMS.

The symptoms of worms are debility, feebleness, sluggish movements, emaciation, staring coat, hide bound, skin covered with blotches, irregular and capricious appetite, tucked up belly, pallid appearance of the lining membrane of the lip, badly digested fæces, rubs the tail, and where fundament worms exist a whitish substance will be found about the fundament.



Symptoms of Worms.

Give of calomel, 3 drams; tartar emetic, 1 dram. Mix and divide into three powders; one to be given at night for three successive nights. To be followed, in twenty-four hours, with a good purging ball.



Tænia, or Tape Worm

Different Kinds of Worms.

INFLAMMATION OF THE EYES.

Symptoms.—A watery discharge from the eye, eyelids partly closed, membrane of lid on under side much reddened.

In ordinary cases all that is necessary to do is to keep the horse quiet and bathe the eye with cold water. Either of the following will be found good:

Laudanum, 1 oz.; rain water, 1 pint. Mix. Or, acetate of lead, 1 dram; sulphate of zinc, ½ dram; rain water, 3 pints. Mix for use.

Either of the above may be applied with a soft sponge two or three times a day.

Give on the tongue, three or four times a day, three or four drops of belladonna.

More thorough treatment would be a seaton below the eye, which of itself, will soon, in most cases, effect a cure.

The following is perhaps one of the very best eye washes used. It is a favorite remedy of great value. I insert it as given me.

EYE WASH.

Take three hen's eggs and break them into a quart of clear cold rain water; stir until a thorough mixture is effected; boil over a slow fire, stirring every few minutes; add half an ounce of sulphate of zinc, (white vitriol;) continue the boiling a short time, and the compound is ready for use. In this preparation a solid substance, or curd, is precipitated or thrown down, and a liquid solution rests upon the top. This is the best wash for sore eyes of either man or beast that was ever made. The curd applied to the inflamed eye at night will draw the fever and soreness nearly all out by morning. After two or three days the water should be strained from the curd, and put into a bottle for future use. This eye wash is invaluable. When applied to the human eye it should be diluted.

A gentleman who had a copy of my old edition, having this remedy in it, informed me that he was offered $10 for the book on account of the value of this receipt, having used it in his neighborhood with great success, and that he would not sell it at any price.

CUTS OR WOUNDS—REMEDIES FOR.

If the cut or wound is very bad, trim the hair off close around the edges, and wash out carefully with warm water and castile soap. The object next is to produce a granulating process. There is hardly any use in sewing up cuts, as the stitches will sluff out. In treating deep wounds, or cuts or ulcers of any kind, bear in mind that the matter must be sponged or syringed out daily with castile soap and warm water, or what is termed a dependent opening must be made for the matter to run off. Matter alway burrows or pockets. The principle is the same in all cases,—using caustic to cut out fungous or other diseased growths; using for indolent ulcers proportionately more stimulating preparations than for those in a fresh, healthy condition.

THE FOLLOWING DIGESTIVE OINTMENT

is unrivaled for the cure of cuts or fresh wounds on horse-flesh, and is alone worth more than the price of this book to any horseman.

For a healing ointment the following is unrivaled: 2½ lbs. palm oil, 2 lbs. lard, ½ lb. gum turpentine, ¼ lb. beeswax, 1 lb. calamine. Simmer all together over a slow fire, and it will be fit for use. Put a little in the wound once a day. Wash the wound with warm water and castile soap before applying the ointment.

A GOOD SIMPLE HEALING PREPARATION.

Blue vitriol, in the proportion of two drams to a pint of water is an excellent application for wounds. If a caustic effect is desired, increase the quantity to an ounce or more, and it will be found a fine preparation to rouse old ulcers to a healthy action. Good for poll evil or other ulcers.

A fine healing lotion is: Tincture myrrh, 1 oz.; tincture aloes, 2 oz.; water, ½ pint. Mix, and apply once a day.

HEALING OINTMENT FOR CUTS, GALLS, ETC. GOOD.

Oxide of zinc, pulverized fine, 4 drams; carbolic acid, 6 grains; lard, 1 ounce. Melt the lard and stir in the zinc. Add the carbolic acid and mix thoroughly. Apply once or twice a day to the cut or injury. Will cause a healthy discharge from a foul ulcer.

LINIMENT FOR OPEN WOUNDS. A FINE PREPARATION.

Take sulphate of copper (copperas), 1 oz.; white vitriol, 2 oz.; muriate of soda (salt), 2 oz.; oil linseed, 2 oz.; Orleans molasses, 8 oz. Boil over a slow fire fifteen minutes, in a pint of urine, all of the above ingredients. When nearly cold add 1 oz. of oil of vitriol and 4 oz. spirits of turpentine, and bottle for use. Apply to the wound with a quill, which will soon set the wound to discharging, and perform a cure in a few days. Be careful to keep the wound covered either with a bandage or a plaster. Should be applied once or twice a day until it discharges freely.

WASH FOR FRESH WOUNDS. A FAVORITE REMEDY OF GREAT VALUE.

One teaspoonful white vitriol, 1 teaspoonful copperas, 2 teaspoonfuls fine gunpowder; add to 1 quart of boiling water, and let it stand until cool. If the wound is deep, apply with a syringe. One of the best of remedies for the purpose recommended.

LINIMENT FOR FOUL ULCERS. GOOD.

Sulphate of copper, 1 oz.; nitric acid, ½ oz.; water, 8 to 12 oz.

COOLING LINIMENT FOR EXTERNAL INFLAMMATION. GOOD.

Goulard extract, 1 oz.; vinegar, 2 oz.; spirits of wine, 3 oz.; water, 1½ pints. Apply with a bandage.

FOR INFLAMED LEG, GALLED SHOULDERS OR BACK. A REALLY GOOD THING.

Sal ammoniac, 1 oz.; vinegar, 4 oz.; spirits of wine, 2 oz.; tincture arnica, 2 drams; water, ½ pint. Mix, and bathe with it often and thoroughly.

BUTTER OF ANTIMONY.

For corns, canker, indisposition of the sole to secrete healthy horn, wounds in the foot not attended by healthy action, and for every case where the superficial application of a caustic is needed, the chloride of antimony (butter of antimony) is one of the very best.

STICKING-PLASTER, FOR CUTS OR WOUNDS.

Burgundy pitch, 4 oz.; tallow, 2 oz. Melt the articles together, and spread on linen or cloth while hot. Cut in strips of proper length and width, and draw the wound together; warm the strips and apply them. Clip the hair short where the plaster is to be applied.

WASH FOR REDUCING AN INFLAMED WOUND.

One oz. sulphate of zinc, 1 oz. crotus martes, ½ oz. sugar of lead, 1 pint water. A sore will not smell bad when this wash is used.

SPRAINS AND BRUISES.

It must be borne in mind, the first object in treating acute inflammation caused by injury of any kind is to lower the inflammation. Cold water, or one ounce of sugar of lead to a pint of water, would be better, and is a remedy of great value, to be used repeatedly until relief is afforded.

The following is excellent: Saltpeter, 4 oz.; sugar of lead, 1 oz.; muriate of ammonia, 1 oz.; common salt, 1 pint, cold water, 2 galls. Mix and bathe the parts affected; or keep constantly wet with the following, which is good:

Tincture arnica, 2 oz.; cold water, 1 quart. This will prevent inflammation or swelling following a bruise or sprain.

ANODYNE STIMULATING LINIMENT.

Spirits of hartshorn, 1½ oz.; sulphuric ether, 1½ oz.; spirits of turpentine, ½ oz.; sweet oil, ¾ oz.; oil of cloves, ½ oz., chloroform, 1 oz. Put into a strong 8 ounce bottle and cork tightly; keep in a dark place, or wrap with paper. This liniment relieves pain, and is good for lameness, etc., and for all cases of strains and soreness. To be well rubbed in.

Oil of turpentine, 1 oz.; tinc. opium, 1 oz.; soap liniment, 1 oz.; tinc. capsicum, ½ oz. Stimulating liniment; good for rheumatism, sprains, etc.

MAGIC LINIMENT.

Used very generally; good not only for sprains, bruises, etc., after the acute stage, but a fine counter-irritant for pleurisy, inflammation, etc.: Oil of spike, 2 oz.; organum, 2 oz.; hemlock, 2 oz.; wormwood, 2 oz.; sweet oil, 4 oz.; spirits ammonia, 2 oz.; gum camphor, 2 oz.; spirits turpentine, 2 oz.; proof spirits, 1 quart—90 per cent. Mix well together, and bottle tight.

FOR FRESH STRAINS, ETC.

Carbonate ammonate, 2 ounces; apple vinegar, ½ gill. Rub in well.

TO ABATE SWELLING CAUSED BY AN INJURY.

Take common wormwood, 2 oz.; New England rum, 1 quart. Steep the wormwood in the liquor and apply thoroughly.

A FINE SIMPLE LINIMENT.

Two parts ammonia to 4 parts of soft water, good for strains, etc.

THRUSH.

This is a rotting of the frog, with a discharge of matter from the cleft or division of the frog, occasionally producing lameness. The treatment is simple and effectual. Wash the parts well with soap and water, then apply powdered sulphate of copper to the parts, and fill up all the cavities with cotton, packed in so as to keep out all dirt. This process should be repeated in a few days if necessary.

For Thrush or Canker: Burnt alum, 4 oz.; sulphate of iron, 2 oz.; sulphate of copper, 1 oz.; camphor, 2 drams. Mix.

MAGIC HEALING PREPARATION.

Burnt alum, ½ oz.; prepared chalk, 1 oz.; pulverized gum camphor, 1 dram; calamine, pulverized, 2 drams. Mix.

Sprinkle on the sore. Its effect will be apparently wonderful, healing a simple wound in a few hours.

If it is desired to cicatrice a wound quickly, this is to be used. Good for fresh wounds, galls of collar, saddle, or in fact for any purpose requiring a fine healing astringent. This is the receipt for the wonderful healing powder so much advertised. Its effect will appear wonderful to those not accustomed to its use. It is just the thing for sore or lacerated mouths, or any such difficulty requiring great astringent healing properties.

TO REDUCE SWELLING OF THE LEGS AND STRENGTHEN THE TENDONS AFTER HARD DRIVING

A favorite remedy on Long Island. One pint alcohol, 1 ordinary sized beef gall, 1 ounce organum, 1 ounce oil of spike, 1 ounce gum myrrh, ½ ounce camphor gum. First wash and rub clean and dry. Then bathe with the liniment and rub dry. Then apply again and bandage the leg, being careful not to bandage too tight.

This is the best liniment for the purpose recommended I have ever used. It should be kept in every stable.

This is a splendid remedy for the above purpose.

TO RECRUIT A HORSE HIDE-BOUND OR OTHERWISE OUT OF SORTS.

Nitrate potassa (or saltpeter), 4 oz.; crude antimony, 1 oz.; sulphur, 3 oz. Nitrate of potassa and antimony should be finely pulverized, then add the sulphur, and mix the whole well together. Dose: A tablespoonful of the mixture in a bran mash daily, for a week or two.

This will be found an excellent remedy. It was given me ten years ago, by Dr. T. Burton, of Fultonville, N. Y., (one of the most successful of medical practitioners, and not only one of the best horsemen with whom, in my varied experience, I have become acquainted, but one of the best men I have ever met, and to whose interest and encouragement I am more than to any other single cause indebted for my great success. It was by this gentleman's advice that I made a series of models with which to illustrate the principles of shoeing, which have so often since been admired by horsemen. There are a few chance acquaintances I have made during the inception of a checkered career in my profession, the remembrance of whom becomes at all times only a growing source of pleasure and encouragement, but chief of them all stands this gentleman, whose encouraging predictions I now take the liberty of acknowledging in this connection, as an assurance of my continued appreciation of his interest so long ago, and that I have done the best I could to prove worthy of his high, flattering assurance of my future success.)

CRACKED HEELS.

Two ounces resin, 2 ounces copperas, 2 ounces alum, 1 ounce beeswax, 1 pint tar, size hen's egg of tallow; boil over a slow fire, skim off the filth and add the scrapings of sweet elder a handful; when cool, fit for use.

This is the best local application for cracked heels or stuffing of the heels that I have ever used, and is in fact one of the very best of healing preparations.

Six years ago, in Ohio, Turco had an aggravated cracking and stuffing of heels of so bad a character that I feared stuffing of the hoofs. In defiance of all the treatment I could then think of for cure, I was compelled to poultice, and did so continually, using a variety of preparations

including charcoal and night soil as experiments. Of course, I could now manage such a case easily, but at that time all my efforts were baffled, and there was a strong prospect of my favorite horse I then valued at three thousand dollars, being ruined.

At this time, an old gentleman who claimed some success as a "horse doctor," saw the case, and, against my judgment, insisted upon using this remedy, which he said would cure it in two weeks, and, to my surprise and gratification, there was a perfect cure in less than that time.

There was no internal treatment given. It will be found a remedy possessing great curative virtues for this purpose.

In treating scratches or grease heel, a local treatment will always be facilitated powerfully, and is almost indispensable, by giving a dose of physic.

GREASE HEELS.

This is a white, offensive, greasy discharge from the heels of the horse. The skin becomes hot, tender and swollen. The acrid character of the discharge often causes large portions of the skin to slough away, leaving an ugly sore behind.

Treatment.—Open the bowels with the following ball: Barbadoes aloes, 1 oz.; pulverized gentian root, 2 drams; pulverized ginger, 1 dram; water sufficient to make the ball. Wash the parts well, and poultice for two or three days with the following: Flax seed meal mixed with a solution of 2 drams sulphate of zinc to a pint of water, which keep clean, and bathe frequently with glycerine, or the solution of zinc; or a solution of the chloride of lime may be used; or the bichloride of mercury may be used in inveterate cases with good results, provided it is not repeated oftener than once a week.

CURE OF SCRATCHES.

Four ounces tincture arnica, 4 ounces glycerine. If heels are cracked badly, add: 1 ounce iodine, 2 ounces tincture myrrh, ½ ounce gun powder (powdered fine.) Put all into a bottle and shake thoroughly; put on two or three times a day.

In treating scratches, first give a dose of physic, or a few bran mashes.

CANKER.

This is a more aggravated form of thrush, often proving very troublesome to manage. It is a continuation of the thrush between the horny frog and the internal structures of the foot, causing separation between them.

Treatment.—Cut away all the horn which has been separated from the soft structures of the foot, and apply the following ointment: Take equal parts of pine tar and lard, melt over a slow fire, and add sulphuric acid very slowly until ebullition (boiling) ceases, and apply to the parts. The foot must be protected from dirt by a bandage or a leathern boot.

QUITTER.

This is a formation of pus between the hoof and the soft structure within; a sore at the coronet or upper part of the foot, which at first is a hard, smooth tumor, soon becoming soft, and breaks, discharging quantities of pus.

Treatment.—Poultice the foot for several days with flax seed meal. As soon as the hoof becomes soft, cut away all loose portions, but no more, and inject with a syringe either of the following once a day: Chloride of zinc, 2 drams, dissolved in a pint of water; or, sulphate of zinc, 1½ drams, in a pint of water; or, nitrate of silver, 2 drams, in a pint of water; or glycerine may be used with advantage. Before using the wash have the foot well cleaned with castile soap and water.

MANGE.

Take the horse in the sun and scrub him thoroughly all over with castile soap and water, then wash him well from head to tail with gas water, in which put 2 drams white hellebore to the gallon. He must now be put in another stall, distant from the one in which he has been standing. Thus treated, it rarely requires more than one washing to effect a permanent cure. The harness should be thoroughly scrubbed and put away for six or eight weeks. These precautions are necessary to success in this otherwise troublesome disease.

No. 2.—Oil turpentine, 4 oz.; oil tar, 4 oz.; linseed oil, 6 oz. Mix.

PREPARATION TO KILL LICE ON HORSES.

One ounce of arsenic to a pail of soft water. The horse should be washed thoroughly in some warm place. It is not known to many that hen lice and common human body lice grow on horses with great rapidity. This remedy is a sure cure, and is invaluable.

NASAL GLEET.

This is a chronic discharge from one or both nostrils, of a whitish, muco-purulent matter, the result usually of neglected catarrh. The general health of the animal does not seem to suffer; he looks well, feeds well and works well, yet we have this discharge, which is caused by weakness in the secretory vessels of the lining membrane of the nose.

The successful treatment in all cases where this disorder has existed has been on tonic principle. Bleeding and purging are positively injurious. Give one of the following powders night and morning: Seaquin-chloride of iron, 2 oz.; powdered cinnamon, 1 oz. Mix and divide into four powders. Or: Carbonate of iron, pulverized gentian and pulverized quassia, of each 1 oz. Divide into four powders. Or: Nux vomica, pulverized, ½ oz.; linseed meal, 2 oz. Divide into eight powders. Another good preparation is: Muriate of barytes, ½ oz.; linseed meal, 1 oz. Divide into eight powders. The last is best.

CAUSTICS

Are substances which burn away the tissues of the body by decomposition of their elements, and are valuable to destroy fungous growth and set up healthy action.

Corrosive sublimate, in powder, acts energetically.

Nitrate of silver is excellent to lower granulation.

Sulphate of copper, not so strong as the above, but good.

Chloride of zinc is a powerful caustic. It may be used in sinuses, in solution, 7 drams in a pint of water.

MILDER CAUSTICS.

Verdigris, either in powder or mixed with lard, as an ointment, in proportion of one to three.

If a wound or an ulcer will not heal so long as there is a foreign body, or unhealthy growth in it; hence, if a wound or puncture from any cause, there must be a removal of hair, pieces of wood, bone, etc. No matter what you do, if any foreign body remains in the wound, it will not heal. This done, wash it or inject with warm water and castile soap, after which the regular digestive ointment can be used, or a mild solution of any of the remedies recommended for the purpose. But if fungous growths cannot be removed with the knife, a caustic becomes necessary, a little of which is to be put on the part, or into the sinews. Carrying this treatment to extreme implies using a hot iron. (The actual cautery.)

FARCY—CURE OF.

One-quarter pound sulphur, ⅛ pound saltpeter, 1 ounce black antimony. If acute, give one tablespoonful twice a day. If sub-acute, once or twice a week.

The sum of $50 was repeatedly paid for this prescription, and it has made some marked cures. It is regarded as specific for farcy in the portion of Ohio in which I obtained it. In two instances, gentlemen who have used it in the treatment of farcy have informed me it cured, and expressed themselves as valuing it worth $50.

The following is my regular treatment for this formidable disease:

Three drams of powdered sulphate of copper, given every night in the food, until the animal refuses to eat. After a few days repeat, but if the case is bad give the medicine in water as a drench, for ten days, if he will not take it in his food.

CONDITION POWDERS.

Take 1 pound of ginger, 1 ounce of anise seed, pulverized, 1 ounce of fenugreek seed, 2 ounces of ginseng root, pulverized, 1 ounce of the seed of sumach berries, pulverized, 1 ounce of antimony; mix it with one pound of

brown sugar. This is excellent for coughs, colds, or to give a horse an appetite.

TO CURE COUGH—NO. 2. EXCELLENT.

Put all the tar into alcohol it will cut, and add one-third in quantity of tincture belladonna. Dose: From one to two teaspoonfuls once or twice a day. Very good.

TO CURE COUGH—NO. 3.

Take tartar emetic, 1 oz.; resin, 2 oz.; bloodroot, 1 oz.; salts of tartar, 2 oz.; ginger, 2 oz. Mix, and give a tea spoonful three times a day, in the feed.

COUGH POWDER.

Fenugreek, ginger, licorice and bloodroot, equal parts Half proportion lobelia and camphor may be added. Dose tablespoonful twice a day. For heaves, add more camphor

DIURETIC DROPS

that are reliable for stoppage of water, foul water, or inflammation of the kidneys, in all cases:

Take of sweet spirits of nitre, 4 oz.; balsam copaiba, 2 oz.; oil of juniper, 2 oz.; spirits of turpentine, 2 oz.; gum camphor, pulverized, 1 oz. Mix all together, and shake well, bottle, and it is fit for use for man or beast, under all cirumcstances where a diuretic is required.

Dose: For a horse, 1 oz. in half a pint of milk once in six hours; for a man, 1 teaspoonful in a tablespoonful of milk once in six hours.

Be sure to shake the ingredients up well before turning out for use.

THE PULSE.

The beating, as it is termed, of the heart, and that of an artery, tells the exact condition of the circulation and of the health, to the experienced practitioner.

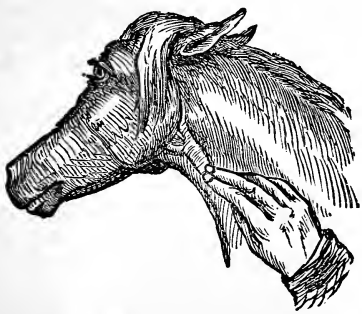
In a state of health the pulse is from 36 to 40 in a minute. It will be felt easiest and best at the lower jaw, a

little behind where the sub-maxiliary artery and vein come from the under jaw. Pass the finger down the jaw, up near the neck on the inner edge, and you will feel a cord-like ridge, and upon quietly but firmly pressing it you will feel it throb or beat. Each contraction of the heart forces a jet of blood through the arteries throughout the system. The arteries are strong elastic tubes, which expand as the blood is forced through them, but contract again as soon as the volume of blood passes, forming a beat which can be plainly felt under the finger at this point. It is highly important to understand the condition of the circulation to treat diseases, especially of an acute character, successfully.

Frequent reference is made to the state of the pulse in different diseases, such as colic, pneumonia, laminitis, &c., &c. Hence it should be studied carefully. For example, during the early stage of colic, the pulse will be hardly affected, and the ears and legs will be natural in temperature; while in inflammation of the bowels the pulse will be quick and wiry, ears and legs cold, &c. In fever it is quick, wiry and light, indicating the extreme or not of obstruction in the circulation.

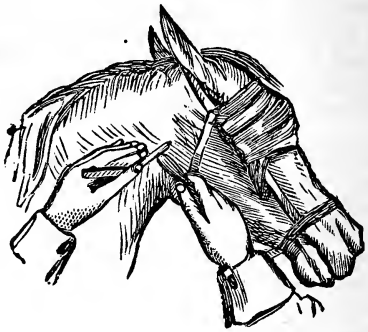
BLEEDING.

For general bleeding the jugular vein is selected. The horse is blindfolded, or his head turned away; the hair is smoothed along the course of the vein with a moistened



Raising the Vein.

finger, then with the third and little fingers of the left hand, which holds the fleam, pressure is made on the vein sufficiently to bring it into view, but not to swell it too much. The point to be selected is about two inches below the



Bleeding from the Neck Vein.

union of the jugular vein at the angle of the jaw. (See cut.) The fleam is put in a direct line with the vein at the center, when it is to be hit sharply with a stick. See that the fleam is large, sharp and clean, for if rusty or dull, inflammation of the vein might result. It is of great importance that the blood be drawn quickly. When sufficient blood has been taken, the edges of the wound should be brought closely together, and kept together by a small sharp pin being passed through them. Around this a little tow or a few hairs from the mane of the horse should be wrapped, so as to cover the whole of the incision, and the head of the horse should be tied up for several hours, to prevent his rubbing the part against the manger. When the bleeding is to be repeated, if more than three or four hours have elapsed, it will be more prudent to make a fresh incision, rather than to open the old wound.

A pin is first stuck through the lips of the wound; a portion of tow, thread or hair is then wrapped round the pin.

PHYSICING.

It is always best, if possible, to prepare the horse for physic by giving a bran mash twenty-four hours previously, as the medicine will act more favorably and there is less danger of superpurgation. Five drams of aloes (Barbadoes aloes are always used for horses) will act as forcibly after a mash as seven without. Again, the quantity of physic should be adapted to age and size. The rule is to give one dram for each year up to seven. Eight drams is the largest given at one dose.

Physic Ball: Barbadoes aloes, pulverized, 7 drams; bar soap, 4 drams; ginger, 1 dram. The usual way is to mix the ingredients in this proportion, then reduce to the weight intended and give.

For Alterative Balls simply give from one to two or three ounces of mass, as above prepared, two or three times a week, for a week or two.

For Worms: Give 4 drams aloes, 1 dram tartar emetic, 2 drams ginger, about the size of a bean of calomel, and molasses enough to make into a ball. To be given every morning for three days.

VALUABLE MISCELLANEOUS RECEIPTS.

The following remedies will be found excellent:

DRENCH FOR DIARRHŒA.

Opium, 1 dram; prepared chalk, 1 oz.; compound powder of tragacanth, 1 oz.; mint water, 1 pint.

MERCURIAL ALTERATIVE BALLS.

Calomel, ½ dram; aloes, 1 dram; castile soap, 2 drams; oil of juniper, 30 drops; syrup to form a ball.

ASTRINGENT BALLS.

Catechu, ½ ounce; alum, 3 drams; cascarilla, 2 drams; flour, 2 drams; treacle.

DRENCHES TO PROMOTE PARTURITION

Ergot of rye in fine powder, 2 or 3 drams; pennyroyal water or infusion of rue, 1 quart.

FOR DIABETES.

Opium, 1 dram; ginger, 2 drams; oak bark, p. 1 oz.; decoction of oak bark, 1 pint.

CORDIAL AND ANODYNE BALL.

Castile soap, 3 drams; camphor, 2 drams; ginger, 1½ dram, and Venice turpentine, 6 drams, made into 1 ball.

AROMATIC POWDER.

Caraway, 6 oz.; pimento, 4 oz.; ginger, 2 oz.; licorice, 2 oz. Mix. Dose, 6 to 8 drams.

COOLING AND DIURETIC DRINK.

Dissolve 1 ounce of nitre in a pail of water.

TONIC BALL (VEGETABLE TONIC).

Peruvian bark. 1 ounce; opium, ½ dram; ginger, 1½ dram; oil of caraway, 20 drops. Treacle to form a ball.

DIURETIC ALTERATIVE BALLS.

Dried common soda, 1 oz.; castile soap, 6 drams; resin, 2 oz.; licorice powder, ½ oz.; Barbadoes tar, to form 6 balls. One daily.

LAXATIVE ALTERATIVE BALLS.

Aloes, 4 oz.; soft soap, 4 oz.; common moss 2 oz Mix. Dose 1 oz.

BALLS FOR APPETITE.

Equal weights of assafœtida, saffron, bay berries, and aloes, made into a mass with extract of gentian. Dose 1 oz.

ANODYNE BALL.

Opium ½ dram to 1 dram; camphor, 1 dram; anise seed, ½ oz.; soft extract of licorice.

CORDIAL BALLS.

Ginger and gentian, equal parts; treacle to form a mass. Dose, 1 oz. to 1½ oz.

Ginger and caraway, each 4 lbs.; gentian, 1 lb.; palm oil, 4½ lbs. Beat together. Dose, 1 oz. to 1½ oz.

MIXED BALLS, CORDIAL ASTRINGENT BALLS.

Catechu, 1 dram; opium, 10 grains. TO WASH HORSES BEFORE OR AFTER A JOURNEY.

DIURETIC BALLS.

Resin soap and nitre, of each equal parts, beaten together into a mass. Dose, 1 oz. to 1½ oz.

White soap, 8 oz.; nitre, 3 oz.; 3 resin, oz.; camphor, 3 drams; oil of juniper, 3 drams. For 6 balls, one every morning or every other morning.

TONIC DIURETIC BALL.

Gentian, 1 dram; ginger, ½ dram; sulphate of iron, 2 drams; nitre, ½ oz.; resin, ½ oz. Mix with molasses.

FEVER BALLS.

Emetic tartar, ½ dram; camphor, ½ dram; nitre, 2 drams; ginger, 3 drams. Mix in ball.

Antimonial powder, 2 drams; nitre, 3 drams; cream tartar, 2 drams; honey to form a ball. In influenza twice a day, after a mild laxative.

BALLS FOR FARCY AND GLANDERS.

Sulphate of copper, 1 dram; calomel, 20 grains; common turpentine, 3 drams; licorice powder and syrup to form a ball.

Sulphate of iron, 2 drams; iodide of potassium, 10 gr.; gentian, 2 drams; ginger, 1 dram, and treacle to form a ball.

COUGH BALLS.

Emetic tartar, ½ dram; digitalis, ½ dram; nitre, 1½ dram; tar enough to form a ball. One every night.

Powdered squills, 1 dram; gum ammoniac, 3 drams; opium, ½ dram; syrup to form a ball.

FOR BLOODY URINE.

Acetate of lead, 10 gr.; sulphate of zinc, 40 gr.; catechu, 4 drams; conserve of roses to form a ball. One daily.

FOR DIABETES.

Catechu, ½ oz.; alum, ½ dram; sugar of lead, 10 gr.; with conserve of roses to form a ball.

ANODYNE DRENCHES.

Opium, 1 dram, dissolved in warm water, ½ pint; add 1 quart of starch gruel.

Mix tincture of opium, 1 oz. with sweet spirits of nitre, 1½ oz.; ess. peppermint, 1 dram, and water, 1 pint.

WORM POWDERS

Sulphur, 1 oz.; tartar emetic, 4 drams; common salt, 8 oz., liver of antimony, 1 oz. Mix for 6 doses; 1 daily, in wetted corn.

TO CURE AN INDOLENT ULCER.

Take the green scum that gathers on the water in the frog ponds in the spring and summer; boil over a slow fire; then add fresh butter to the consistence of an ointment. This is an Indian remedy; cured an ulcer of seventeen years' standing that had resisted all other treatment.

The gentleman whom it cured deemed it so valuable, and desiring to benefit those that may be similarly afflicted, requested that I would put it in my book.

For a lacerated wound and bruise, I have found the following so effective a remedy that I insert it. It has a peculiarly soothing, healing effect. I once had one of my big toes crushed by a heavy horse stepping upon it; under like circumstances, previously found even arnica or laudanum to afford the desired relief; by pouring some of this on the part, wetting the stocking, in fifteen minutes I had no pain, and had no trouble afterwards:

Simple tincture of marigold, called callendula, reduced one-third to one-half with soft water. Bathe the part repeatedly with it. It possesses remarkable healing qualities.

GRAIN FOUNDER—CURE OF.

Take three pints of vinegar, into which put six red pepper pods, and boil until reduced to one quart. When cool, give as a drench. Blanket the horse warmly. This will put the horse in a profuse perspiration, and perform a perfect cure. The gentleman of whom I got this, cured a valuable horse that got into his granary and ate so much grain that he was in the morning perfectly stiff. One dose made a perfect cure. He said he would not be without it for one hundred dollars.

CONDITION POWDER.

One-half pound grains paradise, ground; ½ lb. ground ginger; ¾ lb. powdered gentian; 6 oz. cumin seed, ground; 6 oz. fenugreek, ground; 6 oz. carbonate soda; 6 lbs. common brown sugar; 1¾ lbs. salt. Put in one hundred pounds of meal. Dose: one pint to be given with the usual food.

This is considered one of the best tonic condition powders ever used. It is sold in the eastern cities at a large price, under the name of Condition Food, and is held as a secret of great value. I have known $50 to be refused for the receipt.

MISCELLANEOUS RECEIPTS.

THERE are chance receipts here that will be found valuable. At all events, I give such plain, practical explanations, and include the best remedies, obtained by me in various ways during my experience, as I believe best and most reliable. Dr. Somerville informs the writer that he is having the best of success lately in treating colic and inflammation of the bowels with the fever medicine. He gives about a teaspoonful every thirty minutes until there is relief.

You will, however, find the regular treatment under those special heads, colic, pneumonia, inflammation of bowels, founder, to be, if available, the best the writer has found, and in fact he gives the best treatment he can. Altogether, this edition will be found much better than any former one.

TO CURE A FISTULA, POLL EVIL OR ANY INDOLENT ULCER.

Burn corn cobs to ashes, fill the sore to the bottom with the ashes. It may be necessary to repeat two or three times, until a cure is effected.

A countryman who claimed he could cure any fistula, poll evil, etc., with one or two applications of a certain remedy, brought forward several neighbors who fully endorsed his assertions. One man said he had a horse that had been doctored for fistula for two years without doing any good, and at large expense. He was advised by this man to treat as above directed, and a cure was effected in a few weeks. Others who had used it endorsed the statement in the strongest terms. In the cases referred to there was no effort at dressing the ulcer. The ashes were stuffed to the bottom, when a granulating process set in and gradually healed up. Being simple and safe it is worthy a trial, and persons using it will confer a favor by reporting result to me at Buffalo, N. Y., from which point all mail matter will be received.

TO CURE WEAK BACK.

O. J. Madison, livery keeper and large dealer in horses, of Massillon, Ohio, a few years ago, cured several very bad cases. One horse was so weak that he would fall down and could not get up; said it would cure any case of weak back, and that he never knew it to fail.

Give one grain of strychnine night and morning; next take equal parts of pine tar and pitch, warm until it spreads easily, and spread over the small of the back, from the hip forward ten inches, and across to almost the points of the hips; then spread on cantharides (should be well pulverized) until the pitch is thoroughly covered; then cover with two thicknesses of cotton flannel.

A stiff sticking plaster of this nature is called a charge, and the following is one of the best formulas:

Burgundy pitch or common pitch, 5 ounces; tar, 6 ounces; yellow wax, 1 ounce, melted together, and when they are becoming cool, half a dram of powdered cantharides well stirred in. This must be partially melted afresh when applied, and put on the part with a large spatula as hot as it can be without giving too much pain. Tow or cotton should be scattered over it while it is warm, this forms a thick, adhesive covering, which cannot be separated from the skin for months. This is applied for old sprains of the loins, and also strains of the back sinews. The charge acts in three ways—by the slight stimulating power which it possesses, gradually removes all deep-seated inflammation; it promotes absorption of any thickening beneath, and gives general strength to the parts.

DR. SHELDON'S TREATMENT FOR WORMS.

Dr. Sheldon says it never fails to clean the worms out of a horse.

1st. Bran mash. In 24 hours give 1 drachm of santonine, which should be dissolved in water; then mix in a quart of starch, and give as a drench; in 30 minutes give aloes in solution sufficient to move the bowels promptly. The rule, as to the amount of aloes to be given, is explained on page 197, under the head of Physicking.

The same authority claimed such success in the cure of Tetanus, which is among the most difficult diseases to control, that I include his treatment. He claimed that it never failed to cure:

Take a large handful of lobelia (about 1 lb.); steep in a gallon of water; give one quart of the infusion; put poultice of same over the back of the head; same on the cut, or part injured, and continue repeating, at first in thirty minutes; repeating at longer intervals, as there is improvement. Blanket warmly and keep in a quiet place.

Dr. Sheldon practices near Canandaigua, N. Y.; a man of experience He claims the most perfect success by this treatment. He was for several years, Surgeon in charge of 7th Avenue R. R. stables, in New York city. [Regular treatment on page 165.]

I would remind that the veterinary practice is mixed and doubtful in the treatment of tetanus. Prof. Somerville said, I have tried all kinds of treatment and failed. It is a hard disease to control.

STICKING PLASTER—THE VERY BEST.—BY AN OLD PHYSICIAN.

Burgundy pitch, 1 oz.; dragon's blood, 1 oz.; oxcoro, 1 oz.; Venice turpentine, 1 oz. Put in a cup; melt together. Spread, while warm, on leather or cloth.

OLD MR. GOULD'S PREPARATION FOR PUTTING ON THE CLAMPS FOR CASTRATING HORSES.

Mr. Gould is a resident near Bath, Steuben Co., N. Y. He is known in that and surrounding counties for his success in castrating horses, claiming to have never lost a case, and but little swelling after the operation.

The writer took particular pains to see the old man operate, and learn his secret.

The horse was laid down and tied in the usual manner. He washed the parts thoroughly with warm water, and then greased with lard. The clamps were of the usual kind. It is the preparation he put on the clamps that made his success, he said.

He put on the clamp, first rye flour paste; on this sifts on equal portions of red precipitate and corrosive sublimate, mixed together in powder. In 24 hours the clamps were taken off. This method of treatment has been pursued for many years by a friend of the author, and he claims, with unfailing success, by never having lost a case, and is followed by no appreciable swelling.

WIND-BROKEN, WHEEZING, OR WHISTLING.

On page 165 is given a remedy for the cure of whistling, and authority. This proof, when set up, I was unable to read, but arranged, as I supposed, for its being made according to copy. The printers, however made a bad blunder. Instead of "sponga fosta," it should read "Spongia, and Fowler's" solution, 20 drops each, or 20 drops of one in the morning, and the same of the other on the tongue at night, and so repeating until a cure was effected, requiring from four to six weeks. Mr. Conklin referred to, of 25 Jackson street, of that city, informed the writer recently, after being carefully questioned about it, after an experience of nearly five years, that his success has been entirely satisfactory. Instead of dividing and giving alternately night and morning, as before stated, he unites the medicines, and gives of both, so united, 20 drops, night and morning. He said further, that filling a sponge with spongia and pushing it up the nostrils of the horse until thoroughly absorbed into the system, would give marked immediate relief to a heavy or wheezy horse; that he depended upon it for relief to show up a horse well.

The above medicines are not on sale at the drug stores. Go to a Homœopathic Repository to get them or you will be annoyed and disappointed.

TO CURE WEAKNESS AND WEEPING OF THE EYES—THE LIDS SWOLLEN AND THE EYES WEAK.—FOR HORSES.

An old man's Remedy. Claimed that he never failed in curing with it.

Take saltpetre, 1½ oz.; sulphate of zinc, 1 oz.; sugar of lead, 1 oz. Mix all with a pint of vinegar and a quart of soft water. Take a small sponge; fill with it and squeeze in the hollow over the eye once a day until a cure is effected.

CURE OF BIG LEG AND BLOOD SPAVIN.

Mr. James Brown of Troopsville, Cayuga Co., N. Y., cured a Blood Spavin, by rubbing on at night a simple blister (1 part Spanish flies to 4 parts lard).

He put on the blister at night, and washed it off in the morning and applied a liniment of salalmoniac and vinegar (reduced one-half with water), rubbed in thoroughly, using the liniment two days and blister one. It took nearly six weeks to make a cure.

For Big Leg, this treatment was kept up for eight weeks, to make a cure.

BRUISE AND CUT ON MAN OR HORSE.

A favorite prescription of great value.

Laudanum, 1 oz.; arnica tinc., 1 oz.; sassafras oil, 1 oz. Mix, bandage lightly, when possible, and keep wet. Said the gentleman who gave the above prescription, I bruised one of my fingers terribly, literally smashing nail and flesh. I was in the greatest pain. When, after hours of suffering, a gentleman from New York accosted me, and learning my trouble, said for thirty cents I can relieve and cure you. He gave me this prescription. I had it put up, kept my finger wet with it during the night, and next day there was no pain, and in two days my finger was well. It removes all fire and pain and heals by first intention.

There are two prescriptions in this book that are above all price for cuts and bruises. One is the tincture of marigold, called callendula, described on page 201, and the above. For man or horse they are unrivaled and are worth far more to any family than the cost of this book. One of my horses (Tommy), was kicked and seriously injured, deep holes being made in the shoulder by the corks of the shoe. Severe swelling and soreness followed immediately, making the horse seriously lame and sore. Bathing thoroughly during the same evening and night, following with the first-named remedy removed all soreness and he went to work next day apparently as well as ever, and the cuts were healed in two days.

Mr. James Bennet, of Cleveland, a gentleman of great skill as a horseman, and of the highest integrity, called my attention to the callendula preparation. Said he, I never saw anything that would take out soreness like it. A stallion bit me on the back. I was in great pain. A gentleman obtained some of it which he poured upon my shirt over the part, and in twenty minutes I was relieved from pain. The writer, in Painesville, Ohio, had a mare offered that pulled, on a walk, six men by the bit around the ring. It was an exhibition of the most desperate pluck imaginable. The result was the animal's tongue was cut fully half off, and the mouth was badly bruised and became terribly swollen in a short time. I had a few ounces of callendula with me, which I had previously obtained to try it, if opportunity presented. I reduced some of it one-third to one-half with water, and bathed the mouth with it thoroughly, repeating at first every hour, and next day every two to three hours. In the course of a few hours the swelling went down and within three days the tongue was healed and the mouth was entirely well.

You can make callendula by filling a bottle with marigold blows and filling it with good whisky, and let stand until the strength is taken up by the liquor. Reduce this one-third to one-half for use. Or you can get it at a homœopathic repository. It is not usually kept in ordinary drug stores.

COUGH DROPS, FOR COLD AND COUGH.

Fluid extract belladonna, 10 to 15 drops in a tablespoonful of water on the tongue three or four times a day. If there is swelling of the glands of the neck, and especially if the attack is acute, apply any stimulating liniment or mild blister—anything that will act well as a counter-irritant. This works splendidly in most cases. In fact you will find it just the thing, as we have found and proved by long experience.

COUGH POWDERS.

An excellent remedy.

Liquorice root powdered, fenugreek, lobelia, blood root, camphor gum, equal parts. Dose—tablespoonful two or three times a day in feed. In all cases of acute or chronic cough, if thickening of glands of neck, stimulate outside neck sharply.

EYE WASH.

A remedy of great value for inflammation of the eyes or sores of any kind.

Crotus martes and white vitriol, equal parts; dissolve in a half-pint of snow water or pure soft water. Dissolve thoroughly, and when settled pour off and add half as much more water. If too sensitive, or much inflammation, reduce.

This has cured fever sores when all other treatment failed. Alzerah Williams, Mrs. Waite of Jamestown, N. Y., and John Woodford of West Hickory, Pa., were cured by it.

FOR DEEP WOUNDS.

Prevents inflammation or tendency to sloughing or mortification.

One lb. saltpetre, 1 gallon water, 1 quart best whisky. Inject into the wound with a syringe three times a day until a cure is effected.

A gun-shot wound, a foot deep, in the thigh of a horse (the ball could not be found, remaining in the leg) was perfectly cured in two weeks by this treatment.

In treating deep and dangerous wounds, especially if the animal is plethoric or fat, take away the grain, give a dose of physic, feed bran, carrots, etc. If grass is available substitute it for hay. You can also omit physic if grass is given freely. The acid on the grass neutralizes physic and makes it unnecessary.

FOR REMOVING CALLOUSES OR THICKENING, CURBS OR BUNCHES OF ANY KIND.

Oil origanum, oil spike, oil amber, spirits turpentine and camphor, 1 ounce each. Rub on thoroughly two or three times a week.

When in Ohio, the writer bought a fine work horse very cheap, on account of having a very bad curb on one of his legs, making a very disagreeable blemish. He was purchased late in June and kept constantly to the hardest pulling as a wheel horse. A little of the above medicine was rubbed on about once a week, sometimes oftener, and again would frequently neglect doing so for more than that time. By fall the enlargement was all gone, and the leg was as smooth and well as the one opposite.

SLOW BUT SURE CURE FOR SPAVINS.

Spirits of turpentine and hog's lard, simmer in the sun three or four days. Apply three or four times a week until well. By this treatment the horse may be kept to his work.

TO CURE FITS.

Put as much valerian root, and the castor or wart from a horse's leg, which is to be cleaned and cut into small pieces, as will be digested in a pint of whisky. Dose—three teaspoonfuls each day, and repeated until a cure is effected. A son of Mr. Hoyer's, of Shelby, Niagara county, N. Y., twelve years old, was subject to fits terribly, being in a fit sometimes, Mr. Hoyer stated, for two hours. Dr. Failing, of Royalton, next town, obtained the above remedy in Canada, which cured the boy in six months. Mr. Henderson, hotel keeper of Otisco, N. Y., claimed to have been cured by this prescription.

A spavined horse will travel better if the inside heel-cork is hammered down, or the inside of the shoe is perceptibly thinner, so as to relieve pressure upon the inside of the leg. If ringboned before, hammer down the toe-cork, and turn the toe up like a well worn down shoe, rounding up like a sled crook with medium crooks behind. The object is to enable the foot to roll or turn on the ground easily, and thus bring less strain upon the joint which is sore and sensitive.

TO CURE CUTS OR BRUISES OF THE CHEEKS.

Use inside 1 dram tannin to ½ oz. borax, three or four parts water; swab once a day inside of wound. For outside dressing, use tincture myrrh and aloes (described on foot page 184). All wounds or injuries before being dressed should be washed or sponged clean with castile soap and tepid water, then dress with medicine. Wounds or sores should not be dressed oftener than once in 24 hours.

MAGIC LINIMENT.

Two oz. oil of spike, 2 oz. origanum, 2 oz. hemlock, 2 oz. wormwood, 4 oz. sweet oil, 2 oz. spirits ammonia, 2 oz. gum camphor, 2 oz. spirits turpentine, and 1 quart proof spirits—90 per cent. Mix well together, and bottle tight. For sprains, bruises, lameness, etc., in man, this liniment, without turpentine, is unrivaled.

NOTE.—This prescription was obtained by the writer twelve years ago, in Onondaga Co., N Y. Much was claimed for it; that it would cure lame back, bruises, sprains, etc., and with the turpentine worked well upon horse flesh. My attention has been particularly called to it during the past two years by parties who used it. In Niagara Co., N. Y., a gentleman, in looking over his book after the school, pointed to it, saying: "There is a receipt I would not take $50 for." He said a very fine horse in that neighborhood a few years ago got strained in the back so badly that he could not get up in consequence. A negro from Syracuse, took the horse in charge, made and applied a liniment to the back, bathing it in thoroughly twice daily. There was rapid improvement; the animal being soon able to get up, and got entirely well. He offered the negro $10 for the receipt, without avail, that he made the nigger drunk and stole the receipt from him, "and," said he, "that's it exactly." He took down a bottle from a shelf in the sitting-room (in Charlotte, Niagara Co., N. Y.), saying: "Here is some of it; they could not keep house without it here. For toothache, neuralgic pains, sprains, etc., the landlady said it was indispensable; that they kept it always in the house." This was corroborated by others.

At Clifton Springs, Ontario Co., N. Y., during my last tour through that section in 1874, a gentleman pointed out the same prescription taken from my old book, and said he would not take $100 for it; that he had cured 40 cases of neuralgia with it; that he put up the medicine as a specialty for that purpose, at $1.00 a bottle; first making it up for his wife, who was troubled with neuralgia curing her. It was used by others with the same result. The demand becoming so great that he put it up as a specialty and had thus secured a large local sale of it.

TO GROW HAIR.

Add as much sulphur to sweet oil as will make it thick as cream; rub thoroughly into the tail or mane twice a week. This will grow hair on a tail rapidly. One of my horses rubbed the hair off his tail so as to spoil it. The skin was smooth and glossy, but no hair would grow there. Some one told me to apply the above; in a short time a thick heavy growth of hair started and grew to full length. Gifford lost all the hair from his tail, falling out (in 1873), in defiance of all that could be done. The above was rubbed well into the dock twice a week, and a heavy growth of hair soon started, making a fine tail.

FOR SCRATCHES, SADDLE GALLS, ETC., SORE TEATS, CAKED BAGS, ETC., IN COWS.

Two oz. Goulard's extract; 2 oz. sulphate zinc; 8 oz. lard.

Dr. D. Van Camp, a resident of Theresa, Jefferson Co., N. Y., in 1861, with whom the writer became acquainted at that time, made a sort of specialty of this medicine, to dairymen, claimed that it would cure sore teats, caked bags, etc. Dairymen regarded it through that section with special favor, as the medicine sold readily for such use, and the receipt was sold to quite a number of farmers, after the medicine was used by them, for $10 to each. The Doctor gave the receipt to the writer on condition of not giving it to any one in that section.

SURE CURE FOR NEURALGIA (SELECTED).

The Norwalk *Gazette* says: "A friend of ours who suffered horrible pains from neuralgia, hearing of a noted physician in Germany who invariably cured that disease, crossed the ocean and visited Germany for treatment. He was permanently cured after a short sojourn, and the doctor freely gave him the simple remedy used, which was nothing but a poultice and tea made from our common field thistle. The leaves are macerated and used on the parts afflicted as a poultice, while a small quantity of the leaves are boiled down to the proportion of a quart to a pint, and a small wine-glass of the decoction drank before each meal. Our friend says he has never known it to fail of giving relief, while in almost every case it has effected a cure."

TO STOP HAIR FALLING OUT.

Fill a bottle with lobelia (roots and stems). Fill the bottle now with whisky; scent with anything desirable; wet the hair, rubbing well into the scalp, once a day for a week or two. This is as good as it is simple. The writer's hair was coming out badly; this was used with perfect success.

BOTS.

There has been and is so much misconception about bots and their destructiveness to horses, that a few words about them seems advisable. All horses that are exposed to the bot-fly, must, as a result, have bots in their stomachs. But the question of interest is, what can you do for the cure of bots. In a report by Dr. Adams, published in the "Medical and Agricultural Register," he stated, having made the following experiments at different times on bots *three-fourths grown:*

When immersed in rum, they live, 25 hours; decoction of tobacco, 11 hours; strong oil of vitriol, 2 hours, 18 minutes; essential oil of mint, 2 hours, 5 minutes. Were immersed, without apparent injury, in spirits of camphor 10 hours; fish oil, 49 hours; tinct. aloes, 10 hours; in brine, 10 hours; solution indigo, 10 hours. A number of small bots, with one that was full grown, were immersed in a strong solution of corrosive sublimate, one of the most powerful poisons; the small ones died in one hour, but the full-grown one was taken out of the solution, six hours after its immersion, apparently unhurt.

Bots hang to the muscular coating of the stomach, on the upper side. We see very plainly that we cannot put any medicine into the stomach that will affect the bot, that will not destroy the coating of the stomach, and injure or destroy the horse. In the second place, there is no veterinary surgeon of any pretension to skill, or being authority, who can tell the symptoms of bots from colic. No attention in fact is given to the subject of bots in practice. The symptoms usually indicate colic, the case is treated accordingly, and cured, and the presumption of the diagnosis is supposed to be correct. No man can tell the symptoms of bots from colic, and if he could, he could do nothing for their expulsion; this is the opinion of the best veterinary surgeons in the country. I have been led to take up time and space with this matter to aid the reader should he have occasion to treat an attack of "bellyache" or colic. The majority of horsemen will doctor anyhow for bots without, in fact, knowing but little about the difficulty. Do not be misled; follow the treatment laid down for colic on pages 146 and 148, and follow it rigidly. Do not be misled by persons who may assume to know just what to "give to cure." The treatment given has been used by the writer in hundreds of cases with success, and it is the standard treatment of one of the best practitioners in the country.

A CURE FOR RHEUMATISM.

The berry of the common scoke-weed, or scoke-root—often called poke root. The berries when ripe should be put into spirits—gin is the best—at the rate of two ounces to the pint. Of the tincture thus made, a tablespoonful is given three times a day. This simple remedy, persisted in for a week or more, has effected some remarkable cures. Has been published by the press as a remedy of value and is thrown in.

ITCH OINTMENT (FOR MAN).

1 oz. red precipitate; 1 oz. spirits of turpentine; 2 oz. Burgundy pitch; ½ lb. fresh butter. Melt the butter and pitch, and add the other ingredients, stirring until cold.

VEGETABLE CAUSTIC.

Make a strong lye of hickory or oak ashes, put into an iron-kettle, and evaporate to the consistence of thin molasses; then remove into a sand bath, and continue the evaporation to the consistency of honey. Keep it in a ground stopped glass jar.

This caustic is very valuable in fistulas, cancers, scrofulas and indolent ulcers, particularly where there are sinuses, necrosis (or decay of bone), and in all cases where there is proud flesh; and also to excite a healthy action of the parts. It removes fungous flesh without exciting inflammation, and acts but little except on spongy or soft flesh.

A VALUABLE REMEDY (CLIPPED FROM THE PRESS).

Every family should keep a quantity of chlorate of potash. We have never found anything equal to it for a simple ulcerated sore throat. Dissolve a small teaspoonful of it in a tumbler of water, and then occasionally take a spoonful of the solution so as to gargle the throat. It is nearly tasteless and not at all offensive to take, and is hence well adapted to children. Nothing is better than this for chapped or cracked hands. Wash them in a weak solution and they will soon be well. It is also good for a rough, pimply or chapped face. It may be procured at any druggist's.

SORE MOUTH.

The lips frequently become sore at the angles of the mouth, from cutting or bruising of the bit. Tincture of myrrh and aloes, equal parts, applied to the sore, will soon cause it to heal.

A VERY FINE HEALING PREPARATION FOR CUTS.

Equal parts tinc. myrrh and balsam copaiba. To be used once a day. This is the favorite remedy of one of the most successful horsemen, a man of good sense and remarkably successful. It is one of the best of healing remedies.

TO CURE BOILS.

Two parts cream tartar, one part sulphur, one pint whisky. (About four cents' worth of each of the two.)

Take one tablespoonful three mornings; then skip three mornings, and so on, for nine mornings. Obtained by an old man, and claimed to be an infallible cure.

TO CURE COLDS, CHILLS, AND LUNG FEVER.

Take tincture aconite, 1 oz.; veratrum, ½ oz.; soft water, 4 oz.; dose 25 to 40 drops on the tongue, to be repeated every thirty or forty minutes, more or less, and at longer or shorter intervals according to the severity of the case. You may substitute belladonna for the veratrum; and, if there is much chill, 30 grains of quinine can be added, which must be cut with sulphuric acid before mixing.

The first is the FEVER MEDICINE used so generally in the principal stables in New York and other cities. This is what I use for my own horses. I have seen it used for the cure of hundreds upon hundreds of cases of inflammation of the lungs, and in all cases of chills and fever arising from exposure to cold. This prescription is priceless to owners of horses, because it makes the treatment so safe and simple, and it is just as good as it is simple.

FOR INFLAMMATION OF THE EYE, CAUSED BY INJURY, HAYSEED, ETC.

Put 30 to 40 drops of the preparation into a tumbler of soft water, and you have a fine preparation for acute inflammation of the eye, the result of an injury. I have used it with marked success. Bathe the eye with it several times a day; keep the horse in a dark stall, and take away all grain. Feed green grass, bran mashes, &c.

FOR INFLAMMATION OF THE BRAIN, OR MEGRIMS.

The horse is taken suddenly with a fit from undue pressure of blood upon the brain. (See megrims, or inflammation of brain.) Give the fever medicine three times a day for a few weeks, and a cure will be effected. Several horses subject to this difficulty, that required bleeding, &c., every few months, were given the fever medicine three times a day for a few weeks. No relapse followed.

When the horse is exposed to cold, and has a chill, ears and legs cold, &c. (see symptoms of lung fever, &c., in a preceding chapter), give the fever medicine promptly: DO NOT GIVE PHYSIC OR OIL. Put the horse in a well-ventilated stall, where no current of air can strike him. Put on a good warm blanket. You may rub the legs, and use even a sharp liniment; but it is seldom necessary to do more than give the medicine, and let the horse alone. The pulse, ease of breathing, and the heat in the ears, will indicate improvement.

FOR RHEUMATISM IN MAN.

Three times the writer has been cured of severe attacks of rheumatism, in two to three days, by taking 8 to 10 drops of the fever medicine on the tongue.

Years ago the writer, on two occasions, was kicked on the shin, causing serious ulceration, most difficult to cure. In 1875 had the same part badly cut; severe pain and inflammation followed. As a mere matter of chance experiment, 40 drops of fever medicine were put into a glass of soft water; a handkerchief was saturated with this, and tied around the leg at 7 and 10, P.M., and at 7 and 10 o'clock next morning. All soreness and inflammation subsided, making a perfect cure.

Have used it about same strength in several severe cases of inflammation of the eye, from injury (in horses), with the most marked success. Simply bathe the lids, and drop it into the eye from a sponge from four to six times a day.

I state the simple facts, and hope they may serve to help others.

HOOF LINIMENT FOR CONTRACTED OR SORE FEET.

Venice turpentine, ½ pint; aqua ammonia, 2 oz.; salts of nitre, 1 oz.; benzoin, 1 oz.; alcohol, 3 oz. Apply to the edge of the hair and all over the hoof once a day for a week; after that, for a week or two, three or four times a week, as may be necessary.

Gifford, one of my trained horses, when seven years old, was foundered. At that time I knew nothing about the treatment of diseases in horses; and besides, I did not see the horse until five weeks after being foundered. His feet became small, dry, and hard, and so brittle and weak that with three clips on a shoe we could not hold a shoe with nails on either forefoot. The horse was a complete cripple, and ruined. The above prescription was given me by a Western man, who claimed great things for it, for curing soreness and weakness of the feet. Its application two months gave not only a good condition of the hoofs, but cured of all soreness; and now, after eight years' use, the horse has sound, strong feet. This grows good, tough horn rapidly. It will make the horn soft, and, preventing evaporation as well as stimulating growth, is the best hoof-liniment of which I have knowledge, and is invaluable.

NOTE. — In this prescript'on in another part of the book, the word "benzoin" was inaccurately printed "benzin."

A NAIL IN THE FOOT.

For driving a nail into the foot, or stepping on a nail, the following treatment you can rely upon.

If a nail has been driven into the foot, get the horse to the stable as quick as you can, take off the shoe, poultice the foot, and give a sharp dose of physic, and let the animal stand quietly. The object is to keep down inflammation. No hot oils or any thing stimulating are to be applied.

A little of the digestive ointment may be used after the inflammation goes down, to excite a healthy granulating process, or any cooling astringent. There is liable to be tenderness if the sole should strike the ground afterwards, as there may be inflammation of the periosteum, to relieve which, put on a high-heeled shoe, and blister around the coronet. The sole is sometimes bruised by the shoe pressing upon it, causing much inflammation and lameness. Take off the shoe, poultice for twenty-four hours or more; fit the shoe so as to remove all pressure from the sole; if sore yet, continue the poultice; if matter is formed, treat as you would any simple ulcer, with a healing astringent. Several good preparations are given in another part of this work.

NOTE. — The digestive ointment prescription is given as the first and best remedy for healing cuts and fresh wounds, under the head of CUTS.

FOR CRACKED HEELS.

Two ounces resin, 2 ounces copperas, 2 ounces alum, 1 ounce bees-

wax, 1 pint tar, size hen's egg of tallow; boil over a slow fire, skim off the filth, and add the scrapings of sweet elder, a handful; when cool, fit for use.

This is the best local application for cracked heels, or sloughing of the heels, that I have ever used, and is, in fact, one of the very best of healing preparations.

Years ago I owned a horse that had a fearful condition, the fore-feet cracking and rotting. Army men said the feet were taken as they were in the army, when the feet rotted off. I despaired of being able to cure the horse — a valuable one. After doing every thing that I could think of without success, an old drunken horse-doctor gave me the above prescription, asserting that it would make a perfect cure in two weeks. Its use did cure perfectly in that time, and is one of the best I ever saw. It is good to heal any kind of a cut or sore, saddle-galls, &c.

FOR COLIC IN HORSES. — DR. BURTON'S REMEDY.

A Favorite Prescription of Great Value.

Sulph. ether, 1 pint; aromatic spirits ammonia, 1 pint; sweet spirits nitre, 2 pints; opium, ¼ lb.; asafœtida (pure), ¼ lb.; camphor, ¼ lb. Put it in a large bottle, let it stand fourteen days, with frequent shaking, and it will be fit to use. Dose: one ounce, more or less, according to the severity of the case, once in from thirty minutes to an hour. Should be given in a little water.

NOTE. — By using the same proportion of tincture for the gum you can use this immediately.

Dr. Burton of Fultonsville, N.Y., regards this prescription for colic as invaluable. He is a gentleman of high attainments, and large experience as a medical man; and the above he said was the best remedy for colic he ever used, that he never knew it to fail in making a cure. He said at one time a boatman was about leaving his horse to die on the tow-path, from a severe attack of colic, when he came along. The man was induced to go two miles for some of the medicine, which relieved the horse in half an hour. I use the remedy given under the head of *Tympanitis*, or *Flatulent Colic*, and never knew it to fail when given promptly.

A GOOD APPLICATION TO A PUTRID ULCER.

To remove fetid smell of fistulous withers, poll evil, canker, and wounds, dilute chloride of lime with twenty times its quantity of water, and dress with it whenever there is an offensive discharge; mix a poultice with this preparation, and put it on. It will remove all smell, and cleanse by its action.

SWEATING OR LIQUID BLISTER.

An infusion of two ounces of Spanish flies in a pint of oil of turpentine. This forms a good liquid blister. If you wish to make a good sweating blister, so that it will raise a certain degree of irritation and inflammation on the skin, but not sufficient to blister, good to gradually remove some old or deep-seated inflammation, or cause of lameness, add a little common oil. Should be rubbed in well.

THE BEST CORDIAL FOR A HORSE.

The following is the best cordial for a horse that is old, has lost his appetite, and is recovering slowly from sickness, or for an old horse that has been worked too hard.

Four parts each of carraway powder and bruised raisins, and two each of ginger and palm oil, beaten into a mass. This is harmless, and is one of the very best.

A TONIC BALL.

Good for Chronic Debility after Sickness or Overwork.

Gentian, 4 drs.; chamomile, 2 drs.; carbonate of iron, 1 dr.; ginger, 1 dr.

DIGESTIVE FOR HEALING RECENT OR OLD WOUNDS.

They act as mild stimulants to produce a healthy granulating action to heal.

The best digestive or healing preparation is that given first, under the head of CUTS. A weak solution of blue vitriol, in the proportion of two drachms to a pint of water, is also a good preparation.

A very good healing ointment is one composed of three parts of calamine ointment and one of common turpentine. Sponge the cut or wound with warm water and castile soap, and dress with the preparation once a day — *no oftener.*

ASTHMA. — HOW CURED.

Take smart-weed, carefully dried. Fill an earthen bowl with smart-weed, pour in hot water, and cover until steeped. Take half a glass three times a day until cured. Given by James Garcelon of Lewiston, Me. Mr. Garcelon for two years could not sleep, except by sitting in a chair. Relief was immediate, and a cure was effected in a year.

Another Remedy.

A lady of intelligence in Western New York told the writer that her uncle was cured of asthma by taking a teaspoonful of salt in half a tumbler of water before going to bed at night, and in the morning; that he sat up to sleep for years; that he had taken the salt and water for a year. He was entirely relieved of the asthma, but he kept taking the salt and water.

HOW TO GIVE RELIEF IN OBSTINATE CONSTIPATION.

Cyrus W. King, of Brunswick, Me., was relieved by this remedy after taking pills, &c., and failing to get a passage of the bowels for seventeen days. Put a table-spoonful of coarse Indian meal into a cup, and wet thoroughly with common molasses, and take it all. An old lady who happened to hear of the case said she could relieve the man in a few hours, and advised this. It was taken at night, and there was perfect relief by morning.

TO CURE COLIC IN MAN.

Take at once a tumblerful of hot molasses. A sailor who was delirious from colic, and nearly dead from it, was relieved in five minutes. Calling my attention to it, and claiming it would cure every case, I was induced to make a note of it. The sailor said he took cold molasses with the same effect.

TO CURE A FEVER-SORE.

Take 3 ozs. blue vitriol and 3 ozs. gunpowder. Boil in a quart of soft water until thoroughly dissolved, and reduced to one-half the quantity. Pour on to the sore while hot as can be borne.

Steven Johnson of Gouverneur, N.Y., was cured of a fever-sore on his arm, of the worst character, of a year's standing. Doctors said he must lose his arm, — his own words. There was necrosis of the bones of the arm; sores in three places; was cured by one application. Mr. Olmsted, of Oxbow, N.Y., had a bad sore below the knee; went on crutches for six months; was cured with one application. Several other cases were reported of an equally remarkable character.

TO CURE AN INDOLENT ULCER.

A gentleman who had a fever-sore on his leg for seventeen years, had spent five thousand dollars in trying to get the sore cured, and had no hope of having it healed, was cured in three months by the following remedy: —

Take the green scum that gathers on the water in the frog ponds in spring and summer; boil over a slow fire; then add fresh butter to the consistence of an ointment. Dress the sore with it once a day. The man claimed to have given it to others who were afflicted with obstinate ulcers, and that it had made perfect cures, and wished, from humanity to others so afflicted, that I would give it an insertion in my book.

FOR WEAK BACK, RHEUMATISM, AND CRICK IN THE BACK.

British oil, 1 oz.; oil of spike, 1 oz.; origanum, 1 oz.; camphor, 1 oz.; alcohol, 1 pint. Put the British oil and camphor into the alcohol first; shake well. T. H. Brown, of Madrid, N.Y., was cured of rheumatism in the leg with this. His mother had a crick in the back; was entirely disabled. A few applications cured her. Accounts of its valuable effects in the cure of other cases were reported.

THE GREAT TANNING PREPARATION.

THIS IS THE GREAT SECRET SOLD A FEW YEARS AGO for tanning all kinds of skins with the hair on. The secret and right to use it were sold through the country at large prices.

To two pails of water add 2 lbs. alum; 2 quarts salt; 2 lbs. Epsom salts; 2 oz. oil vitriol. Wet and scrape the meat and oil out; then put the skins into the liquid and let stand from eighteen to twenty-four hours.

REMARKABLE CURE.

The following is a case of remarkable cure of bruise of thigh, from the use of hot salt.

H. D. Johnson of Pottsdam, St. Lawrence Co., N.Y., fell from a building, twelve feet, upon a pile of wood, injuring him seriously in different parts of the body — the thigh very seriously bruised, causing him to faint away. He had a stiff leg for a month, the part swollen from the hip to the foot to twice its size, was treated with cold water by advice

of three physicians. The limb was entirely stiff and disabled. As a matter of experiment he bound on a poultice of hot salt about an inch thick before going to bed. Next morning he could move and bend his leg, the swelling was all gone down and he was perfectly cured.

The simple facts, as stated above, were given to the writer six years after the injury by Mr. Johnson.

FOR SPAVIN, — IN FIRST OR ACUTE STAGE.

40 grs. nitrate silver to 2 oz. water. Apply from three to five times a day. If the horse has been driven or exercised, apply it when brought in from work.

FOR SCRATCHES, — A VALUABLE REMEDY.

Sweet oil, 6 oz.; borax, 2 oz.; sugar of lead, 2 oz. Frst wash clean with soft water and castile soap; when dry apply once a day. This is a good thing.

FOR RHEUMATISM, LAME BACK, AND DIFFICULTY OF THE KIDNEYS (IN MAN).

Digitallis, calcicum, and aconite, equal parts. Take 10 to 15 drops in water, twice a day. This is a favorite prescription that is valued highly, — worth, so claimed, many times the cost of this work.

FOR STRAIN OR INFLAMMATION, —

Whenever there is much inflammation from strain or wounds: 1 lb. saltpetre, 1 gal. hot water; when cool add 1 quart best whiskey. Saturate a sponge or cloth with the preparation, and keep the part thoroughly wet with it.

HOW TO THROW A HORSE.

First, have made a strong leather surcingle, long enough to go around the body of the horse, to which have attached a strong back strap and crupper. On the off side of the surcingle, about eight inches from the back, have a two-inch ring; from this ring to the back strap at the hip have a strong double strap extend. Now put on this harness, which will be like a bitting harness.

Next take a common hame strap, pass around the near fore leg and over the surcingle, buckling only short enough to allow the foot to come in a horizontal position, or the strap can be tied around the arm and foot. This done, take a cord eighteen or twenty feet long, of the strongest kind you can get, about ⅜ inch in size, if strong enough; tie the end into a knot; about twenty inches from this end make another simple knot, but do not draw it tight. Now pass this end over the neck, put the end knot through the tie, or other knot, and draw close. The object is to have the cord fit around the neck, some distance from the head. Pass the other end of the cord through the ring in the side of the surcingle; at the same time let the cord at the other end extend through the mouth. When the cord is now drawn tight it will be seen to pass from the neck through the mouth back through the ring, and by pulling on the end held in the hand the head

will be drawn to the side. The leg on the opposite side being tied up, when the cord is pulled upon the horse must roll over on his side. This plan will enable throwing a horse very easily, and will enable doing all that is possible to do by this principle of subjection.

SHOEING.

In the first place the object of trimming and fitting the foot for the shoe is to bring it back to its natural shape and bearing. If the foot is healthy, the safest course is not to touch the frog or sole, but cut down the wall from the heel to the toe until the bearing is natural. The bearing of the shell or hoof should be level. The shoe should be made to fit the foot, only so much longer as the foot will grow in the time it is expected to be on. The bearing surface of the shoe should be level, and fit exactly all the way round to the foot. This means just what is said; and the owner should see that the shoe is level at the heels, and not beveled-in cup shape, as shoes will usually be found when ready to be nailed on. Next see that the shoe is as big as the foot. The best way is to sternly object to allowing the foot to be touched with a red-hot shoe, and never on any conditions to allow the shoe to be burned into the foot to fit it.

Let the nail holes be as well forward in the toe as possible; at all events, do not allow the nails to go into but one heel.

Do not, under any circumstances, allow any rasping under nail clenches, and none over them; no filing at all on the outside of the hoof, not even below the clinches, excepting enough down near the shoe to round the edge, but on no account should the hoof be cut down to the shoe, because the shoe happens to be small or short. This sort of work must not be allowed, yet it is just what all country shoers will insist on doing. Simply let the nails be cut off with nippers, clenched down upon the outside of the horn, and if there is any soreness or tenderness the hammering should be light, and carefully done. As to corks, &c., their object is to prevent slipping. In a state of health the nearer the foot is to the ground the better. If the feet are getting dry and hard, you should take measures to keep them damp,—flaxseed wet with water, stuffing or buckling a couple of thicknesses of wet blanket around the foot. The simplest way is to throw some water on the bedding under fore feet during the day.

CONTRACTION.

If in a state of health the object should be to keep the feet natural and healthy, the object now should be to bring the foot back to its natural shape. If one heel is drawn in, then this heel only should be brought back natural. If both heels are drawn in, then both should be spread back. Two conditions now become necessary: first, that the foot is prepared properly; and second, that we have mechanical means that will enable spreading the heels without injury, yet as desired. The practice of sawing between the heels and frog, and then putting on an expansion shoe and spreading the quarters outward violently, is exceedingly cruel and dangerous. In the first place, if the object is to weaken the horn between bar and frog, it can be done but

very imperfectly with a saw; and violently spreading the heels, and thus, in a measure, bursting the shell apart, will produce violent inflammation and lameness. Spreading the heels even in some cases a quarter of an inch, but little resistance may be shown, the horse may walk to his stable all right; but in a few hours, if examined, he may be in great pain, possibly in a high state of fever. It is really very doubtful policy for you to intrust a good horse in the hands of doubtful men who travel the country, assuming to cure all sorts of lameness by this system of treatment.

The first thing to be done in the way of curing contraction, is to thoroughly soak the feet, by tying two or three thicknesses of blanket around the feet and keeping wet for 24 hours, or standing the feet in a tub in which is some mud. When the horn is soft, cut down the feet level to the point of removing the superfluous horn; now, with a knife adapted to the purpose, weaken the horn between the heel and point of the frog, especially back, near, and at the point of the heel. This done properly on both sides, fit a shoe of the simple flat kind accurately to the shell. Well back at the turn on each side, cut or file out enough, as shown in the Tyrrell shoe, but further back, so that it will bend as desired, about at the widest part. Now lay on the shoe as intended to be nailed, and mark on the outside over the inside of the bar at the point of the heel; punch or drill two holes through, if you can, obliquely the direction of the bar; make and drive two strong spikes from the ground surface up. Now bend and file these spikes so that they will extend up and back inside the bar at the point of the heels. The shoe must fit all round: there must be special attention to having those spikes fit, resting against the bar, but not so long as to come against the sole above. Nail on now carefully. Do not, by any means, allow the nails to be large, or rasping of the shell outside. This done, spread the shoe not over three-sixteenths of an inch, if shoe is fitted close. The heels, it is seen, are spread so far as the shoe is opened. This spreading should be repeated once every one or two days, but never more than an eighth of an inch at a time, but follow it up until the foot is brought back to its natural shape.

If the HEELS are WEAK, do not grow horn enough, do not cut away any when paring for the shoe. Simply level the foot, being as careful as you can not to waste by undue cutting where there is none to spare. The shoe should be fitted carefully, and in this case must, in a measure, protect the foot. For where the horn is light at the heel, the sole is also usually light, and will not bear pressure.

If there is a CORN, you must protect that part from pressure, and this is done best by bringing pressure on the frog with a bar shoe; but if there is weakness or inflammation in the coffin-joint, this is not by any means advisable, as it would aggravate the difficulty. You must now use an ordinary open shoe with middling high heel-corks, with no toe-cork; on the contrary, you should round the toe to imitate an old shoe, by bending or turning up the toe. If the horse is stiff and sore, in all cases round the toe, so that the foot will naturally roll a little, and thus in a measure relieve the strain upon the machinery of the

foot and joint above it. To make the heels stronger, that is, have more horn, stimulate coronary ring at the upper edge of the hoof, using a mild blister, just enough to stimulate sharply, twice a week; or use the Hoof Liniment; but you must grow horn from the top down, and you will not see benefit until you have grown the foot down pretty well. If you have contraction, open the feet as directed, minding to keep the feet stuffed when in stable; at all events, the feet must not be allowed to get dry and hard.

QUARTER CRACK.

The only practical way to cure quarter crack is to open the heel on that side, between bar and frog, cutting well down, but not to bleed, until the quarter will give freely, then put on the shoe for expanding the heels. In this case you are to open or spread only the inner heel. The hoof is simply too small for the foot, and doing this properly reaches the point directly. In addition, burn with a firing iron a crease across at the upper edge of the hoof. If this is done properly the hoof will not split any more. You may now grow the hoof more rapidly if you desire, but opening the foot and shoe is the point of success.

MR. BONNER'S SYSTEM OF FEEDING.

In the morning, at five o'clock in summer, and six o'clock in winter, each horse is given two quarts of oats. At nine o'clock two quarts more are given, and the same quantity is given again at one o'clock. Before feeding, each horse is given all the water he will take, unless he is to be driven, in which case the allowance is cut short a little. At five o'clock in the afternoon the allowance of hay is given, usually about ten pounds to each horse, and none is given at any other time during the twenty-four hours. At nine in the evening each horse is given a hot supper, prepared as follows: For the ten horses, twenty quarts of oats are put into a large kettle and boiled, after which is added about the same quantity of wheat bran by measurement, with the proportion of a teaspoonful of salt to each horse. The whole is thoroughly mixed, and when sufficiently cool, each is given his share. If not driven, each horse is walked from half an hour to an hour daily, and the greatest care is taken not to expose them needlessly for a moment without clothing.

INGENIOUS ARRANGEMENT

For sifting, cleansing, and measuring the grain for feeding. The grain is conducted from the loft to the feeding floor by a spout in which are two slides. Pulling one of them out a few inches permits the escape of two quarts, and the other four quarts of grain, which is deposited in a drawer beneath, in the bottom of which is a screen with the handle projecting from the side of the spout. Moving this handle right and left a few times removes all dirt and dust, and leaves the grain clean and fresh, ready for use.

PROF. MAGNER'S EDUCATED HORSES.

THE portraits of my horses and ponies, on the opposite page, all stallions, which was cut from a painting of them, made from life, by one of the most eminent artists in the country, and is a perfect representation of them, will give a better idea of their beauty and value than any worded description I could give. They are conceded by all who have witnessed their performances, to be the finest, most beautiful, best educated, and most valuable troupe of horses ever owned, for the purpose of giving free exhibitions by which to amuse and interest horse men and others in my efforts; and never before, perhaps, was there so fine and valuable an equipment used in illustrating and teaching the science of educating horses.

These horses are not only of the most varied character, but their performances are unquestionably the most exciting and interesting ever exhibited in this country, showing all the peculiarities of driving without reins or bits, and show a sagacity and intelligence in the ring that is conceded to be most wonderful.

TURCO.

TURCO, the farthest on the right, is a black stallion of Duroc-Morgan blood. He is nearly fourteen years old, of beautiful form. He was, when a colt, remarkably vicious; at four years old, having resisted all efforts to break him, he was purchased by me of Esq. Cole, of Smithville, Jefferson county, N. Y., in June, 1861. He was trained by me in Smithville, and among the most interesting features of his training was that of driving to carriage without bridle or reins. The performances of this horse excited the greatest attention in all the principal towns and cities of the north and east. I trained several horses to drive with him, and he has been driven and exhibited, double and single, by me, through the principal towns of twenty-three states

This ceasing to be a novelty, by the number of horses soon after so trained by others, who assuming the most extravagant pretensions, made it no better than a burlesque, I superseded it with other and more interesting features of performance under canvas, as now exhibited by me daily.

This fine horse has shown some peculiar features of sagacity. He will not allow a stranger to loaf around him, will allow any one to approach, feed, water and clean him, but curiosity seekers who may show any timidity in going near him, are soon reminded that he is not to be trifled with, but is perfectly docile.

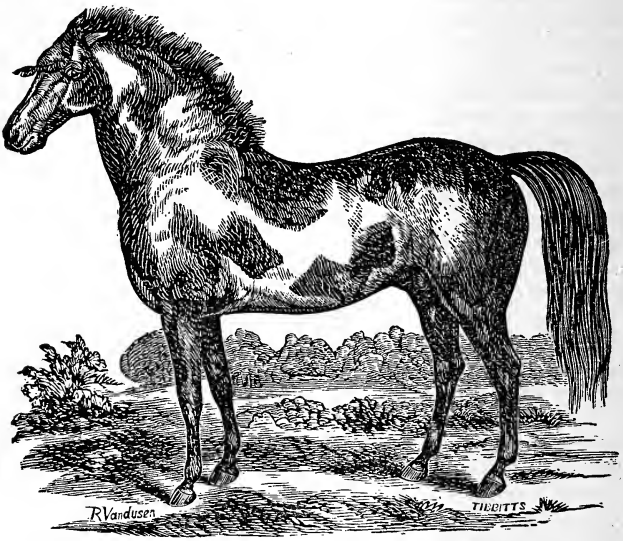
GIFFORD.

GIFFORD, the black horse on the near side, is of Morgan blood, ten years old, and is one of the most beautifully modeled, as well as one of the finest performing horses in the country. Have owned and exhibited him for nearly five years, both north and south. Among his most remarkable feats is that of acting vicious or gentle at will. He will play sick in the most natural and wonderful manner, even groaning from apparent intense pain.

BLIND BILLY.

Next on the off side, to the left, is represented BLIND BILLY, which is acknowledged by all witnessing his performances, to be not only the finest modeled pony, but the most wonderful performing BLIND HORSE in the world. BILLY is now nine years old, mahogany bay color, fourteen hands high, and weighs nearly 900 pounds. He is as above stated, *totally blind*, and has been so for four years. He does everything by word of command only, and not the least interesting peculiarity of his performance is the attention with which he waits for and promptly obeys every command. He will run the ring, turning right or left, go lame, walk on his knees, kick on his knees, look for and find a handkerchief, jump clear of the ground and kick, walk on his hind feet around the ring, or turn right and left in circles while standing erect on his hind feet. He will sit down like a dog, turn right or left while sitting on his haunches. All this, and much more, he does in the promptest manner, at the word of command. He is acknowledged not only to excel all other horses, blind or

not, by the difficulty and variety of his performances, but surpasses as well all horses known, by his wonderful performances of squealing and laughing, at the word of command. The sum of Seven Thousand Dollars has been offered and refused for this beautiful and wonderful animal. He is unquestionably, the rarest, finest, and most valuable performing pony in this country, if not in the world; and the witnessing of his performances the most instructive and interesting novelties of the day.



TOMMY.

The best Trick Pony in the World.

The nearest on the left is the Spotted Pony, TOMMY. As his appearance shows, he is the smallest and most cunning of the group. He is eleven years old, weighs 720 pounds, bright bay color with white spots, extending back on each side of his body, and is a perfect model in form. TOMMY is the clown of the lot. He is in himself a whole show, and the amusement he excites by his unique performances is really side-splitting; it is not so much what he

does as the way he acts out his performance that so intensely amuses. He is as apparently innocent and gentle as can be; even allowing a child to go under, around, or over him. Should a rider even fall under his feet, he will either carefully step over him or stand still until the rider gets up; yet in an instant by the merest signal, his whole nature seems to be changed to the character of a vicious, dangerous stallion, with ears back, mouth open, eyes flashing fire, and every hair on his body on end, he will clear the ring of all intruders. At such a time there are but few of the most courageous who will dare to enter the ring, so apparently dangerous does he appear; yet as quickly at command will he assume his former gentle appearance, and play with any one or go around the ring for presents. The sagacity he exhibits even in this is almost wonderful, for if given no attention he will pass by without apparently noticing a person, going directly to those of the sunniest nature by whom he delights being caressed, always showing preference for well dressed and good looking ladies, for whom he seems to have a great fondness, acknowledging a caress or a present with the politeness of a courtier, by a bow of the head.

It is, however, in his great contests with riders that he shows the most wonderful sagacity and power, throwing or not a little boy easily and quietly as commanded, but sending the smartest and best riders flying at will from his back. It is in his great performance of "*throwing the boys*" that he brings down the house with almost insane applause. I have seen at such times the most habitually grave men and women laugh and scream with delight, until the tears coursed down their cheeks, and in many instances of persons lying down upon the seats, or rolling upon the ground, yielding in their paroxysm of excitement to the uncontrollable impulses which seized them. When the eloquent preacher and senator from Ohio, Mr. Garfield, who, with his friends and faculties of the Hiram College, attended one of my exhibitions in that place; so great was his pleasure while witnessing this great performance of TOMMY'S, that he rolled, clapped his hands, and shouted with delight.

The following from the *Cleveland Leader*, in speaking of TOMMY'S performance during one of my exhibitions in that

city, will better illustrate the excitement and interest which his performance excites:

"But the most laughable scene took place when the spotted wild horse, TOMMY, was introduced. He presented every appearance of a wild steed, and ran restively about with distended nostrils and fiery eye, his mane bristling like the quills of a fretful porcupine, but at the approach of his master he became as tame as a lamb. Every one was invited to try their equestrian skill on TOMMY, and all who tried were thrown to the ground, tenderly, but in the twinkling of an eye. Mr. Magner offered $500 to any one who would ride TOMMY one minute. Several tried, but

Tommy, in his famous act of throwing the Boys.

none were rewarded with success. One ambitious gentleman threw off hat, coat and vest, and said he 'would be d—d if he didn't ride him.' TOMMY was too much for him. He was thrown several times, and finally concluded that he had better let TOMMY have his own way."

Thus it is seen I not only give the most interesting exhibitions free under canvas, but being the author of my own work, and handling and controlling the wildest and most vicious horses daily in illustrating my system, and devoting too, my whole attention to this end, that I am inaugurating an era of interest in the study and kind treatment of the horse, which is in the extreme, commendable and valuable

THE NEW SYSTEM OF EDUCATING HORSES.

THERE have been so many who have travelled in the business of late years, who have claimed to be authors of a new system, &c., that a few words of explanation, in relation to the part I have taken and of my success in this field, become necessary as a matter of duty and justice to myself and the public.

I have now been before the public over eighteen years, employed in imparting a knowledge of such principles of educating and managing horses as I found to be most simple and practical. I claimed and advertised a NEW SYSTEM from the start. In the winter of 1863–64 I wrote and published in Utica, N.Y., at "The Herald" office, an exposition of my treatment, called "The New System," copyrighting the same under that title.

Some time afterwards I sold to Mr. A. H. Rockwell, for three hundred dollars, the right to republish this work under his own name, a copy of the contract of sale of which I have still in my possession.

Mr. Rockwell, in the revision of this book, implied having taught me, of having trained the horse I then owned, &c.; when the fact was, I was over a year on the road before I met or heard of him. I had trained and exhibited this horse nearly two years before he saw him, and was in no way connected with him except in this business transaction.

I also gave a gentleman named R. P. Hamilton the privilege of republishing one of the earlier editions of my book, which he did under his own name, a copy of which edition I have in my possession.

In March, 1868, I started a resident of Batavia, N.Y., named O. S. Pratt, in the business, selling him two trained horses — one of them a gray trick-pony called Billy — and a fancy advertising wagon. At the same time I sold another gray trick-pony, named Tommy, to a gentleman

named Graves, a resident of Lockport, N.Y. This pony was afterwards purchased of Mr. Graves by the said Pratt, and is the same that has been used by him.

This man Pratt, who had carried on previously a small grocery-store in Batavia as his sole business, and was so illiterate that he could not even write, started out, advertising himself as the great horse-tamer of the world. Adopting the tactics of the most presumptuous quack, he pushed himself into notice. This man, with others, worked upon the Wilkins horse referred to in Mr. Bonner's letter for a week, utterly failing to do any thing with him. He claimed that the horse could not be broken. I offered to forfeit $2,000 if I could not make this horse gentle to handle with entire safety in forty minutes. I did it in thirty minutes. This private experiment led to my giving a series of test experiments before a committee of leading horsemen in that city. With what success the reports which I here copy will show: —

From the New York Sunday Democrat.

On Friday evening Mr. D. Magner gave an exhibition, to which none but invited guests were admitted. Among the horse-fanciers present were Robert Bonner, Dan Mace, Ed. Wilkins, J. D. Walton, George Lewis. Jacob Creveling, Amos Little, Dave Bonner, W. S. Ridabock, R. J. Anderson, Arthur Gillender, Walter Briggs, W. Jackson, Jo. Bennet, N. H. Leadbetter, Jacob Baulch, James Moffatt, William Rutzer, Dr Ogle, Dr. Brighton of Boston, Dr. Lee, Henry Casey, J. C. Durant, Isaac Sonburg, Dr. O'Shea, Hamilton Busbey, William Watson of Westchester, with his two sons, William Apgar, C. Moran, jun., Dr. Beadle, James Morris, E. H. Freeman, and M. Bain.

After exhibiting some extraordinary tricks by his trained horses, Mr. Magner requested them to choose from those present a committee to report on his system.

The committee selected consisted of Messrs. Robert Bonner, chairman, Charles Swift, jun., secretary, Dan Mace, Amos Little, Arthur Gillender, George Lewis, J. D. Walton, James Moffatt, W. W. Briggs, N. H. Leadbetter, and others.

The committee having taken their seats, Mr. Magner, in a brief address, explained the main points of his treatment. . . . . In the course of his remarks he very justly stated that more men than horses require training.

A notoriously vicious horse was then brought into the ring; and in less than thirty minutes he was trotting in harness as gentle as though he had always been a family horse, and this, too, without throwing or harsh treatment. Mr. Bonner, turning to the committee, said, "*Rarey*

taught us our A B C; but Magner teaches us how to put the letters together." The committee are to witness several more exhibitions before making their report; though, without exception, they state that they are fully satisfied with what they have seen.

At the close of the exhibition the following

AUTOGRAPH LETTER FROM MR. BONNER

was handed to the representative of this paper: —

"OFFICE OF 'THE LEDGER,'
New York, Jan. 25, 1872.

"*Mr. D. Magner.*

"DEAR SIR, — From the conversations I have had with you, and from the satisfactory manner in which you handled Mr. Wilkins's horse to-day in my stable, I have no hesitation in saying that I consider you the most scientific and successful educator, or tamer, of vicious horses I have ever met. Mr. Wilkins's horse was a most vicious brute. He would kick with more spite and determination than any horse I ever saw; and at the same time he would strike with his forward feet. Indeed, Mr. Wilkins himself told me that he was, to use his exact expression, 'the worst horse in New York.'

"In less than an hour you succeeded in handling him as freely, and with as much apparent safety, as you would any ordinary family horse.

"I have myself handled Princess, the famous old competitor of Flora Temple, on your new system; and, although she was at one time so vicious as to be almost unmanageable, my youngest boy — a lad of fifteen — has, during the past week, been driving her daily in the Central Park.

"All things considered, your treatment is, in my opinion, entirely new and reliable, as well as humane and practical.

"Yours truly, "ROBERT BONNER."

In a conversation subsequent to the exhibition, Mr. Bonner stated, that, if he could have made his letter any stronger, he would have done so.

Committee Report.

APRIL 9, 1872.

We, the committee appointed by the citizens and prominent horsemen of New York to investigate and report upon the merits of Mr. Magner's system of training and educating wild and vicious horses, respectfully report that we have exerted every effort in obtaining horses of bad character to test the practicability of his treatment, and secured a thoroughbred mare, owned by L. C. Popham of No. 945 Broadway. This mare was fourteen years old, and had resisted all efforts to control her in single harness; would kick herself free from shafts, and run away at all hazards. Also, a thoroughbred gelding, sixteen years old, owned by H. L. Herbert of Red Bank, N.J. He would balk while riding, kicking and running away while in harness, and was so vicious that he could not be driven or controlled in harness; was purchased by Mr. Herbert for $2,500; proved so worthless that he sold him for $150, and afterwards repurchased him for $25. Also, a fine Star mare, owned by R. L. Pell, Esq., of Fifth Avenue and Twenty-sixth Street; would kick herself free in single harness,

and would run away. This mare could not be driven single. These, with others, were handled in our presence, including a large number of prominent citizens and members of the press, all of whom were invited to witness the experiments proposed to be made before this committee.

In eighteen minutes (without throwing or any cruelty) the Professor made the Herbert horse so docile, that he could be driven with the greatest freedom without breeching, demonstrating the most wonderful change in his character. The owner publicly stated the fact of his former vicious reputation and unmanageable habits. The Popham mare was driven with equal success in twenty-seven minutes, submitting to all kinds of handling, even from strangers. The Pell mare was next handled, and driven gently in ten minutes, and the other horses with the same marked success.

We have carefully studied the merits of this treatment, and have no hesitation in saying that Prof. Magner is the most skilful and successful horse tamer and educator who has ever visited this city. His treatment reduces the subjection and education of horses to a definite and fixed science, and is in principle and effect entirely superior to any other ever brought to our notice, and inaugurates a new era in the subjection of horses. The great ease and certainty with which horses of extreme viciousness can be controlled by this treatment makes the knowledge of it indispensable to all interested in horses, particularly to farmers and those who raise colts, and induces this committee to recommend all who can to attend Prof. Magner's lectures, and obtain a copy of his book.

We, the committee and members of Mr. Magner's class, would state that we have never given our indorsement to any other party travelling for this same purpose.

GEO. LEWIS (Proprietor Sale and Boarding Stable, Fiftieth Street).
J. D. DUNWALTON (Proprietor Boarding and Sale Stable, Thirty-ninth Street).
DAN MACE (Proprietor Sale Stable, Forty-ninth Street).
W. W. BRIGGS (Proprietor Tattersall Stable, Seventh Avenue and Forty-second Street).
ARTHUR GILLENDER.
N. H. LEADBETTER (Proprietor Livery and Sale Stables, Seventh Avenue and Forty-fifth Street.)
JAMES MOFFAT.

ROBERT BONNER, *Chairman.*
CHARLES SWIFT, JUN., *Secretary.*

The following well-known gentlemen, with one hundred others, fully indorse Mr. Magner's system as the best and most humane they have ever witnessed: —

FRANK D. CURTIS, Esq., Vice-President State Agricultural Society, Charlton, Saratoga Co., N.Y.

DAVID BONNER, Esq., brother of Robert Bonner.

G. CHAPMAN, Esq., inventor of Chapman's patent safety reins.

E. H. HATHORN, proprietor boarding and sale stable, Thirty-eighth Street, New York.

RALPH OGLE, V.S., 330 West Twenty-fifth Street, New York.

L. H. BRAILY, V.S., chief veterinary surgeon U. S. cavalry.

D. COSTELLO, Esq., circus proprietor, with P. T. Barnum's show.

J. E. WILKINS, owner of vicious horse mentioned in Mr. Bonner's letter.

BUDD DOBLE, driver of Goldsmith Maid, South Pennsylvania Square, Philadelphia, Pa.

O. H. HICKOK, driver of Lucy, St. Elmo, and Western Girl, Coleman House, New York.

FRANK LESLIE, Esq., publisher of Frank Leslie's weeklies, &c.

JAMES HARPER, Esq., of Harper Bros., publishers.

Rev. Dr. FIELD, editor "New-York Evangelist."

SIDNEY E. MORSE, Esq., publisher "New-York Observer."

Rev. E. P. ROE, chaplain in Harris's light cavalry, now of Highland Falls, N.Y.

Buffalo (N.Y.) Class.

The Buffalo, N.Y., Class, represented by the following well-known citizens, GEORGE W. TIFFT, Esq., Judge MASTEN, Major DICKEY, C. J. HAMLIN, Esq., and F. W. TRACY, Esq., unanimously resolved, that "we commend Prof. Magner to our friends as a reformer of more than ordinary usefulness; that his theory of governing and educating horses is the most practical, humane, and valuable in its results we have ever witnessed; and can be learned and practised by any one of ordinary intelligence."

Cleveland (O.) Class.

At the close of the last lecture of his course in Cleveland, the following resolution was moved by Hon. Silas Merchant (President of the City Council), which was carried by acclamation of the entire class, which comprised one thousand leading citizens.

Resolved, That we, as members of Prof. Magner's class in this city, deem it but a just recognition of his skill and success in teaching us his system of educating horses, which we regard as the best ever shown us; and for his gentlemanly demeanor; that we are fully satisfied with his instructions, hereby indorse him and his system of educating and treating horses, to our friends and the public.

From the Toledo (O.) Commercial.

Monday, the last lesson of Prof. Magner to his class in Toledo was given. His success here has been unprecedented, and his teachings unparalleled in their line. What the members of the class have learned could not be bought of them for ten times the sum paid by them for the instruction. He goes to Adrian, Mich., from here; and we bespeak for him there a hearty welcome and the usual success attending his efforts. The Professor is a man of his word, professing no more than he performs, and doing good wherever he goes. In his teachings he not only learns his scholars, but benefits the horses, by introducing a more humane and gentle course of treatment, and therefore merits the name of benefactor to the brute race, or a niche beside the renowned Bergh. We congratulate the Adrianites on their acquisition.

From the Jackson (Mich.) Patriot.

Prof. Magner gave his last exhibition and lecture in this city on Saturday afternoon last, and, as usual, a large number were in attendance at the opening exhibition, and at least two hundred members of his class were present to listen to the closing lecture, and witness some of his wonderful feats of subduing and managing horses. At the close of the lecture, one of the members of the class offered the following resolution, which was received with applause, and adopted without a dissenting voice: —

Resolved, That we, the members of Prof. Magner's class, hereby express to him our high appreciation of his instructions in his system for the reform and elevation of horses, which, in our estimation, is incomparably superior to any system ever brought before the public. By this system the management of the horse is reduced to a definite and exact science, and we desire most heartily to commend Prof. Magner to the confidence of the public, and to express to him personally our thanks for his patience, his thoroughness, and his gentlemanly bearing, while engaged in his profession in this city.

From the Adrian Weekly Times.

During the present week, Prof. Magner, the celebrated horse tamer and educator, has conducted his classes in this city. He has created a genuine *furore* among all interested in horses in this city; and his reputation has extended to a circuit of country, and persons have attended his classes from, over twenty miles distant. He has succeeded in subduing and rendering perfectly tractable some horses which have resisted all previous efforts of horse-breakers and others to reduce them to submission; and his wonderful power over horses excites the most astonishment from those the best posted in equine care and treatment, and the exhibitions of the trained stud of horses which he owns and carries with him are superior in interest to the choicest features of the best circus travelling. In every place he has been, the Professor has received the most emphatic and cordial indorsements.

From the Michigan Horse Breeders' Association of Jackson, Mich., May 6, 1871.

We, the undersigned officers and members of the Michigan Horse Breeders' Association, and citizens of Jackson, have attended Prof. Magner's lectures on the education of horses while in this city, and indorse him to the people of the State as a *reformer of great merit.*

His treatment reduces the education of horses to a definite and fixed science, insuring not only the most humane, but the most wonderful results in the control of wild and vicious horses. We have witnessed the effect of his treatment in the control of a large number of vicious horses, and have no hesitation in saying his system is the best in the world. S. S. VAUGHN, President.

C. C. TURNER. J. A. ROBINSON, Secretary.
DAN. B. HIBBERD, GEO. SHERWOOD, Treasurer.

From the Turf, Field, and Farm.

We have one man who professes horse-taming, and who at the same

time rises above the vulgar tricks of the charlatan. His name is MAGNER. He seems to have given honest study to his art, and to have brought a high degree of intelligence to the study. He regards the horse not as a dull, stupid piece of clay, but as an animal able to draw deductions, and to be moulded by firmness and kindness. His best subjects are those which the charlatans pronounce the worst. His system is based upon logic, such a system as is worthy of a controlling power. *Mr. Magner can cure the very worst cases. We honestly believe that there is not a horse in the world which he cannot make gentle and obedient.*

The following flattering notices, taken from a large number, are included, as a further proof of the superiority and value of my system.

Letter from Hiram Buck to Robert Bonner.

CROWN-POINT CENTRE, April 4, 1877.

MY DEAR SIR, — I enclose a slip from one of Mr. Magner's "Advance Circular" papers, purporting to be a copy of a letter over your signature. As the world is full of humbugs, and some bold ones, I write, in my own and several of my neighbors' behalf, to ascertain if the letter is genuine, and you really find Magner's system original and meritorious. One reason of our asking this favor is, in an article from "Up North" (correspondent in "The Argus") Mr. Magner is spoken of in disparaging terms. Prof. Magner has advertised to be at Crown Point in a few days; and should you have the kindness to favor us with a reply, please do so soon, as it will make a difference with some about attending his school. Yours very truly, HIRAM BUCK.

Autograph Letter from Robert Bonner in Answer to Hiram Buck's Letter.

DEAR SIR, — Mr. Magner understands his business better than any living man. My letter, to which you refer, is genuine. He is *not* a humbug: on the contrary, I think, he has no equal living as a horse-tamer. If *you* know of any other person who understands how to subdue vicious horses better than Mr. Magner, I will thank you to send him to me. Yours truly, ROBERT BONNER.

Autograph Letter from Rev. W. H. H. Murray.

THE MURRAY STOCK FARM, GUILFORD, CONN., Sept. 1, 1877.

I fully concur in what Mr. Bonner has said. Mr. Magner is a benefactor in the truest sense of that word. His knowledge of the horse is thorough, and his ability to impart it unusual. The horse to-day is man's most useful servant. How to make him a safe and reliable servant easily and quickly, Mr. Magner can teach people. I know him and his methods and mannerism of teaching, and cordially commend him to popular favor. Every man who owns or drives a horse should be sure to receive Mr. Magner's instruction. I cordially commend Mr. Magner to all acquaintances of mine who love or own horses everywhere. They will find him all his indorsements say he is.

W. H. H. MURRAY.

TEACHING TRICKS.

Do not hurry a horse too fast in his training. If you undertake to teach too much, or too fast in the start, or indeed at any time, you only confuse or discourage. Do only so much as the horse can comprehend, and make daily progress.

TEACHING TO FOLLOW.

If it is desired to simply teach the horse to follow promptly with halter or bridle on, apply the war bridle (small loop); when he comes round promptly, stand off a short distance and say, "Come here, sir." If he does not come to you, give a sharp pull, gradually changing positions and going a little farther. If he comes to you promptly, caress him; if not, pull sharply, repeating in this way until you can make him come to you promptly, in any direction, at the word.

TO MAKE FOLLOW WITH THE WHIP.

The simplest and easiest way of doing this, is to work up sharply with the war bridle, and when the horse comes to you promptly, take a short, blunt whip, step up to the shoulder, and while holding the bridle loosely in the left hand, pass the whip gently over the shoulder, and tap lightly with the end on the off side of the head. This will annoy the horse and cause him to move the head a little from it, toward you; instantly stop and caress, then repeat the tapping again; should he attempt to run from you, hold him by the bridle. Repeat in this way until the horse will step toward you promptly. Then touch the whip over the hips and say, "Come, sir." If he comes up to you, or shows the least disposition to do so, caress, and so continue until he will come up promptly. Now step a little sidewise and ahead and say, "Come, sir." If he should step after

you, caress, if not, touch the lash over the hips. In a short time the horse will learn to step to you, and follow promptly When he will do this, stand him in a corner of the room, stand a little in front of him and touch him lightly with the whip on the fore-legs and say, "Come here, sir." At the least intimation of coming, stop and caress. Then repeat, touching with the whip. If he moves to you a little, stop and caress, and in this way repeat until he will come to you promptly. Then get a little farther from him and repeat in the same manner until he will learn to hurry up to you, to get away from the whip. Should he bolt away, put on the bridle, and hold the end in the left hand. You can now hold him by the bridle when he attempts to run, until he finds he cannot get away, and will come up promptly.

This lesson should be made very thorough before there is an attempt to take the horse out of doors, and then in a small yard. If this is not convenient, put on the bridle, having good length of cord, and hold in the left hand loosely.

If the horse is of a bad character, the following method may be used: Turn the horse into a room or small yard well enclosed. Provide yourself with a good bow whip. The horse will feel uneasy and look around at you, and then perhaps for some place by which to escape. Walk up to him, and as he runs into a corner apply the lash sharply under his flanks, following him up, making the whip sting keenly around the hind legs. When he stops or turns his head toward you, stop instantly, reach out the hand, at the same time approaching gently. Should he run or turn around to kick, whip instantly as before, and so continue until you can approach and caress the head and neck a little. Then say, "Come, sir," at the same time touching the whip lightly over the hips. If he comes, or shows the least disposition to do so, caress and speak encouragingly. If he runs, whip as before, and so repeat until the horse will come up promptly when touched by the whip.

As the object is to make the horse honest in following, it is necessary to make him feel that you whip him only for resistance, encouraging and flattering for every intimation of obedience, until he realizes his safety from the whip to be in coming to you.

TO LIE DOWN.

Tie the bridle reins into a knot back of the neck. Throw your strap over the back, under the body, and tie to the near foot, below the fetlock. Now pass the right hand well over the back and take a short hold of the strap. Cause the horse to step toward you and pull the foot up. Then pass the left hand around the reins and pull back and down upon them in such a manner as to turn the head a little to the off-side, at the same time pulling down steadily but firmly on the strap over the back with the right hand. As the horse goes down, gradually pull the near rein, so as to bring the head to the left, at the same time pressing down and from you firmly with the right, until the horse will lie down. Pass the end of the strap now through the ring of the bit and draw through gently, step over the neck, and as the horse attempts to get up, pull him back, until he lies quiet. Rub and caress him, and after lying a few minutes, say, "Get up, sir." Repeat in this way for a few times until the horse will lie down readily. Then while holding him on or near the knee with the strap, hit him on the skin of the other with a little whip, until he will bring it under and lie down. After awhile he can be made to come on his knees and lie down by simply pulling the head down a little and hitting the skins with the whip, at the same time saying, "Lie down, sir," repeating until the horse will lie down to the motion of the whip. This is about the easiest and most practical way of teaching a horse to lie down.

TO SIT UP.

When the horse will lie down promptly, put on him a common collar, and while being down take two pieces of rope, or anything suitable, about ten feet each in length. Tie the ends around the hind feet, carry them forward between the fore legs and bring them once around the collar.

Now step on his tail, take the bridle reins in the right hand, while you hold the ends of the ropes firmly in the left. Give a little jerk on the reins and say, "Get up, sir." When the horse throws out the forward feet and springs to raise himself on the hind feet, he finds himself unable to complete the effort, on account of the hind feet being tied

forward under him, and so he brings himself in a sitting position. Instantly step forward, holding the ropes firmly, rub and caress the head and neck a little for a few seconds, then as you see the effort to keep up becoming tiresome, let loose and say, "Get up, sir." By repeating in this way a few times the horse will soon learn to sit up when commanded without being tied.

TO MAKE A BOW.

Take a pin in your right hand, between the thumb and fore-finger, stand before, but a little to the left, of your horse, and prick him on the breast lightly. This produces the sensation of a fly biting, to relieve which he will bring down his head, which you will accept as yes, and reward for by caressing and feeding as before. Then repeat, and so continue until he will bring his head down the moment he sees the least motion of the hand toward his breast, or you can substitute some signal which he will understand readily.

TO SAY NO.

Stand near the left shoulder, holding the pin in your hand, with which prick him lightly on the withers, which will cause him to shake his head. You then caress as before, and so repeating, until he will shake his head at the least indication of touching him with the pin; you can train your horse so nicely in this way in a short time as to cause him to shake his head or bow by merely turning the hand a little, or moving it slightly toward him.

TO KISS YOU.

Teach him first to take a piece of apple out of your hand. Then gradually raise the hand nearer your mouth, at each repetition, until you require him to take it from your mouth, holding it with the hand, telling him at the same time to *kiss you*. He will soon learn to reach his nose up to your mouth; first to get the apple, but finally, because commanded to do so. Simply repeat until the horse understands the trick thoroughly.

TEACHING A HORSE TO DANCE.

Put on the war bridle; hold the cord some four or five feet from the horse's head, and with a whalebone whip tap him on the shin or ankle until he lifts his foot, then caress him, and do the same with the other, making him raise first one foot, then the other, then stop and caress. Next, make him raise them several times, until he moves his whole body by the motion of the whip to the time of music. Caress and encourage frequently.

TEACHING A HORSE TO WALTZ.

After he has learned to dance, put a surcingle around his chest and fasten the bridle-reins to it, the left rein much the tightest, bringing his head well around to the left side. Then make him move forward, when he follows his head, and every time as he is turning his head from you give him a sharp cut with the whip, which will make him jump round quickly until his head comes around to you again. Then you should caress and encourage him by talking kindly, patting and feeding him. He will then be slower to move his head from you, but you must continue with the whip every time the horse's hind parts are toward you and his head from you, caressing every few minutes until he understands to move at the motion of the whip. Patient and careful practice in this way will make your horse prompt and graceful in his movements.

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